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2	COULTAS INTERVIEW
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10	Attendees:
11	Zoë Keliher
12	Jim Struhsaker, NTSB
13	Sean Moretz, Carson Helicopters
14	Chuck Taylor, US Forest Service
15	Chris Coultas, Interviewee's Spouse
16	Bill Coultas, Interviewee
17	
18	
19	KELIHER: We have me, Zoë Keliher.
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21	TAYLOR: Chuck Taylor.
22	MODERIZ G M
23	MORETZ: Sean Moretz.
24	
25	STRUHSAKER: Jim Struhsaker.
26	MDC COLUTAC, Chair Coultag
27	MRS. COULTAS: Chris Coultas.
28 29	MR. COULTAS: Bill Coultas.
30	WIK. COULTAS. Bill Coultas.
31	KELIHER: Alright, that's the only people present to the interview now. Um, we will
32	also give you a copy of the transcript
33	anso give you a copy of the transcript
34	MR. COULTAS: Okay, great.
35	That cooling, grown
36	MR. COULTAS: Okay, yeah, 'cause with that uh, I am I am drugged right now and I
37	have been for the last month and a half.
38	
39	MALE VOICE: Yeah.
40	
41	MR. COULTAS: Actually I'm taking uh, methadone. Uh, twice a day I I have to take
42	that in the morning when I wake up. I'm on methadone right now and then uh,
43	I'm on Percocet and I have to take those every four hours. So I did take Percocet
44	a couple of hours ago.
45	
46	MR. COULTAS: Just so that we're all aware of that.

1 2 FEMALE VOICE: So we're [unintelligible] [LAUGH]. 3 4 KELIHER: Again, the purpose of the interview. Ever since the accident occurred, we've 5 been gathering as much information as possible. The first three days was 6 gathering all the perishable information. All the witness statements, looking at all 7 the different aspects of the wreckage we could get that might be disturbed like, 8 uh, witness marks that might be disturbed and just gathering as much possible 9 information. And you are obviously a key piece. And, since this is the first 10 available time we could do it because of your condition. So I know a lot of time has passed and anything you can clearly remember. If you need some time during 11 12 the interview, no problem. Just take as much time -- if you two want to go into 13 the bathroom and talk and you -- don't worry about it. we're not here to try to 14 make you remember something you don't. 15 16 MR. COULTAS: Yeah, and that's been part of my problem right now Zoë is there's a lot 17 that I've -- I've -- I've -- more than anything, you know trying to figure this 18 whole thing out. And uh, and there's a lot I just can't remember -- I don't know. 19 You know, so as we go through this we'll -- we'll work through that piece --20 21 KELIHER: Yep --22 23 MR. COULTAS: But --24 25 KELIHER: So --26 27 MR. COULTAS: I'll do the best I can. 28 29 KELIHER: And then of course our condolences are to you. I know you've been through 30 a really traumatic time, so anything we can do. 31 32 MR. COULTAS: Thank you. 33 34 KELIHER: Um, start off with background. Can you give us the correct spelling of your 35 name? 36 37 MR. COULTAS: Uh, last name C-O-U-L-T-A-S, first names William but they call me 38 Bill. 39 40 KELIHER: And your date of birth? 41 42 MR. COULTAS: -----43 44 KELIHER: And at the accident, the best estimate you can give of your weight and height. 45 46 MR. COULTAS: Uh, 67", 155.

1 2	KELIHER: And email address and phone number.
3 4	MR. COULTAS:
5	
6	all, you want some?
7 8 9	KELIHER: How about cell.
10 11	MR. COULTAS: Cell is uh,
12 13	MRS. COULTAS: Temporarily suspended. [LAUGH]
14 15	MR. COULTAS: Temporarily out of service.
16 17 18 19 20	KELIHER: Well we didn't find it. but um okay, so to start off, since we have the recorders I won't be doing that much writing but don't get distracted if I am doing anything over here. If you can just tell us as much as you remember, go through the days preceding the accident all the way up to the accident and thereafter. Anything you can possibly remember just try to give me a stream of conscious
212223	MRS. COULTAS: What day? That day, the day before?
24 25	KELIHER: Anything you can remember. Probably two days prior.
26	MR. COULTAS: Yeah, if I can go back that far, I mean. 'cause there was nothing really
27	you know, eventful that that would spark a memory other than, you know,
28	normal uh, normal morning briefings uh, don't believe we flew the last previous
29	couple of days. I'm speculating there, so but I don't think we flew. There was
30	nothing really memorable other than we knew that uh, we had known for three or
31	four days that Roark was gonna take a check ride. His 135 cert ride with Jim
32	Ramich. So we had been spending time preparing Roark for his ride. Uh, basic
33	questions, uh, things that, you know from the uh, from the paperwork to the
34 35	briefing, crew briefing to uh, load calc information. Um, uh, checklist procedures
36	and then uh, the flight itself which would really be uh, going to a confined area operations uh, which then would lead to higher area recon and what acronym we
37	were gonna use for that. the one that we decided was uh, SSBAT, size,
38	suitability, barriers, approach, duration and where we were gonna terminate to the
39	ground. And uh, you know, power check. Uh, low area recon. Um, so those are
40	the items that we would be [RADIO]
41	and items that we would be [RIDIO]
42	MRS. COULTAS: Sorry, forgot I had it on.
43	in the second se
44	MR. COULTAS: The areas that we would be covering as far as that goes. And then uh,
45	some of the other things that we were talking about would be um, settling power,
46	dynamic rollover, um, slope limitations, um, you know, those those kinds of

or -- [unintelligible] I guess. And uh, so we'd been working on that for the first couple of days prior so, that's really about the only real significant thing I recall from the couple of days prior. Uh, the day of, um, started out like any other day. Uh, we went up to the top of the hill, to the helibase, we had breakfast, preflight. We went to the morning briefing or be preflighted and we went to the morning briefing. Uh, we got our -- our load calc numbers, altitude and temperatures just like we always did. Nothing had changed from the previous. And uh, then we went up, set around quite a bit. They did give us heads up that there was gonna be some possible water drop admissions and -- and uh, there was rumor that there was gonna be some personnel movement but they weren't talking about using us. And uh, the -- about the only significant event for me that day was uh, my brother had flown out from Florida the day that I traveled and went on the road, he and his wife. Which was about four days prior to this. And he had gone to our house and my wife and my whole family had a big barbeque at my place and I was working. But uh, they were gonna be heading down to California and they thought they'd just stop in for an hour or so and say hi.

So he was able to stop in and uh, say hi and you know, gave him a hug. And we talked for, I don't know, maybe 20 minutes or so. The uh -- while that -- while he showed up, the helitac crew was doing uh, you know, mock up training on the helicopter and I had -- actually was inside the helicopter with the uh -- with the crew. And uh, can't really recall what they were training on though, at this time. Can't remember. But it was procedural stuff uh, that -- that specifically applied to the helitac crew. I really didn't need to be in the aircraft other than I just wanted to listen and you know, kind of get a feel for what it is that they do. And uh, so that's when I saw my brother and then I exited the aircraft and we hung out for 20 minutes. And I just showed him the helicopter. We walked around the outside and -- and then uh, helitac crew was still working and then we got a water drop emission. So uh, the helitac crew got out of the aircraft, resecured all of the seatbelts, uh, cleaned up all of their stuff. I gave my brother a last big hug and my sister-in-law and I said, "Hey, I gotta go" and uh, they were gonna be leaving and uh, heading back -- heading back further south. And uh, it was my cycle.

So uh, I flew as the pilot in command on that cycle. And uh, um, you know, got the aircraft started and departed the helibase -- I can't remember where -- what division it was that we went to. But we had been in there before and we had uh, been in that same area dropping water before. And we were using the same dip sites that we were using before. So you know, it's pretty routine. Uh, winds were the same. The first part of it, fuel cycle but then at the end of the fuel cycle I had to change the approach direction. Uh, from uh, I was approaching -- previous we'd been approaching up river uh, into the dip with the uh, facing downstream. Where towards the end of the fuel cycle the winds started to change in the canyon there so we had to alter and come 180 degree the other way. So now I'm facing up stream and -- but that was really the only difference in that. uh, flew a couple of hours uh, till the end of that fuel cycle. Um, fire was -- fire activity was -- was low, low to moderate. It wasn't -- nothing being threatened. And uh, so they really didn't -- they didn't need us to come back after that fuel cycle. So we went

back to the helibase, we landed, shut down and uh, we ate lunch, you know, drank some water. Uh, not a whole lot else for the next few hours. Uh, we did -- you know, just talk about the check ride, hey, is Jim still going show up for the ride, that kind of thing. And uh, we haven't -- uh, well we asked um, Sean who was the uh, the helitac and crew boss up there -- and he said he hadn't heard from him but it looked like everything was still a go. So we said okay.

The day just kind of just passed on. And then uh -- and then Jim showed up. Uh, the check ride was mainly for work. Um, so, you know, all the -- once the introductions were completed and uh, if uh -- even if we hadn't got emission to go fly, we were probably still gonna go fly and fly at an area so that Jim could give Roark his check run. Um so they had started the oral piece of it, you know. And they -- were talking about the load calc information. And uh, just some basic, basic stuff. Uh, I can't really recall exactly what -- what Jim was asking uh, Roark and again, I wasn't really a part of that piece but yet I was still kind of within the area. You know, the circle and listening to the questions and uh, but really wasn't participating, if you know what mean. Um, then uh, then they came up and said, "Hey, we gotta passenger haul emission" so uh, it's like, okay. And then uh, it took -- it took about oh, a good 30 minutes I would say, from the time we knew of the mission, uh, for the uh, for Sean uh, to uh, really develop the plan, you know get the real -- get the overall concept of what we were doing and developed a plan on how we were gonna do it.

You know, and essentially what it was is we were gonna move um, some uh, individuals from uh, the top of the mountain, which we found out was helispot 44. And we were gonna move 'em down to uh, another helispot which was down near the highway by the river. Uh, by the Trinity River where they would be loaded up in trucks and moved uh -- uh, to the ICP or -- I don't know where they were gonna move 'em to. And uh, we didn't uh -- let's see, I can't remember if -- I think we knew that there was gonna be about -- somewhere between three and five trips, somewhere in there. Um, the plan was -- is uh, um, we were gonna take um 12 of our helitac crew and we were gonna place six of them at helispot 44 to -- to brief the individuals that were getting on the helicopter. Um, you know, seating, how to work the seatbelts, how to get in and out of the helicopter. What was the primary entry and exit. Where the fire extinguishers were, first aid kits, um, you know, just loading, our helitac, those six individuals would load -- would guide the individuals in and specifically tell them what seat they were in and then uh, they would also uh, load all of those individuals gear, backpacks, chain saws, any of that kind of stuff. So, they all approached the heli -- let's see, I don't want to jump ahead of myself here. but anyway that was the overall plan. The six individuals that we put in at the bottom -- and I can't recall the -- what helispot that was, um, 37 or something like that. I can't recall. But -- and I'm gonna -- I'll call it 37 just so that it helps me try to remember here. um --

KELIHER: 36.

MR. COULTAS: Was it -- okay, 36. uh, so we were um, gonna put the other six individuals down at helispot 36 that their purpose was, was once we landed they would open the door, download the passengers, move them away from the helicopter and uh, and then uh, download all of their equipment. Get it off the helicopter, resecure all the seatbelts, make sure that everything was secure in the back of the helicopter, close the door, give us the thumbs up, that we were clear to depart and then we would depart. So that was the overall plan of uh -- of what we would be doing once the uh, transports were completed, then we would return back to Trinity and that would be end of mission. So um, that was the plan as we knew it before we departed uh, the helibase.

So uh, we all agreed to that. um, again, Jim was evaluating Roark so uh, you know, it was important that we looked at our numbers and made sure all that was good. Uh, Jim confirmed that, you know, our load count numbers were good. They were based on uh, 6,030 degrees. That's what uh -- those were the numbers we were using. Um, so we loaded up the 12 individuals, uh, Jim was on intercom um, and none of the other individuals were um, in the back. And uh, so Roark and I went through the checklist and got the helicopter started. And uh, go the uh -- everybody secure in the back from Jim. And uh, we departed the uh, Trinity Helibase. The plan was -- is we were gonna -- with the twelve individuals onboard we were gonna fly up to helispot 44 and we were gonna look at BLZ because we had never landed in there before. And had never been up there. Even though they told us it was plenty big enough for us to get in there, we just wanted to make absolutely sure that it was. Uh, before we committed ourselves to actually conducting the mission.

So, we flew up to 44, we found it. uh, we flew around it at high altitude, a couple of 100 feet at least, maybe even higher. Uh, 300 feet, probably -- I would say in a left hand orbit. I would say we flew over it maybe -- gosh, seven times at least. And uh, we were going through our size suitability barriers, approach, termination, any other safety considerations. And uh, determining the winds and uh -- and then also looking at our temperature and our altitude. To make sure you know, that we fell within the bounds of our load calc and everything was gonna be good. Uh, we all agreed that it was -- that it met the criteria for uh, that we could get in there and we could perform the mission. So we departed 44 and went down to 36. um, and I was responsible for manipulating the GPS -- program the GPS and all that kind of stuff. Program -- make it so we had the right frequencies in the radios and uh, so we -- we had uh, punched back in 36 and we were heading down to -- down to it. well, there was some confusion in that we were given the wrong latlong for 36. It was a few miles off. And uh, and we -- but we knew that it was down near the river. Near the road, but the latlong that they gave us took us south of the river and back into some -- back into the mountains, back into the woods a few miles and you know, when we got to the spot, there is nothing there.

So, uh, we climbed back, started heading back to the river and we're just making calls in the blind and we got -- we started talking to the individuals and they said, "Hey,

yeah, we heard you fly by and uh, so head back up to the river and you know, come down stream or something" so anyway, they vectored us back in and we found the -- the helispot -- helispot 36. and uh, so we started flying around 36. uh, again, doing a high area recon, size, suitability, barriers, approach, termination and uh, we had determined that it was plenty big enough for us to get in there and vehicles weren't too close. There was a little road that um -- the landing site was kind of up on a little bit of a -- a knoll or whatever. And, there was a -- a road that was just off the nose of the helicopter but it was low, maybe 10 feet or so, 15 feet and uh, they had uh -- and it went up to an intersection and they had individuals there that had closed off the road and all of that kind of stuff. Um, so we uh, we landed and the first six individuals got out of the helicopter. And uh, we tided everything back up. We ran our checklist oh, and when we landed we pulled the throttles back ACS off, beeper trim on 'cause we knew it was gonna be a little while before everybody -- to download and um, so uh -- they got out. The identified individuals got out. They closed the door. Um, gave us a thumbs up and uh, Jim uh, said we were ready in the back. Gave us a thumbs up for everybody back there.

So we spooled her back up, beeper trim off, ACS on. Um, and uh, and then off we departed, 36 back up to 44. [CLEARING THROAT], We started -- I can't remember if it was at this point here where we started talking about fuel. Um, but we knew because we had to -- we spent a lot of time up at 44 orbiting around 44. and the uh -- little bit of the -- uh, the uh, problem we had finding 36, we'd burned a little bit more fuel than what we had anticipated. Uh, so I can't remember if it was here where we started talking about -- they were talking about how many -- we were gonna make uh, five turns. And we looked and -- man, I don't know if we're gonna be able to make five turns. It's gonna be close. I think that's about what we were -- our thought process was at this time. It's gonna be close. So we thought, okay, you know, we got plenty of fuel to do -- for -- you know, fuel anyway.

So we departed at 36, went back up to 44. did a high area recon, confirmed everything, looking at the winds. Um, and then uh, set up for the approach. And uh, shot the approach to -- they had a -- a pink ribbon on the ground about where they wanted us to land. Um, there was a pretty good size stand of trees off to the right front. It was kind of a little rocky area to the front area. There was a -- a line of trees down the left hand side and it kind of curved around to our front. And on the left hand side, that's where the uh, the individuals whom we were talking to on the radio, that's where they were hunkered down. Over in this tree line back over here to our left and a little bit to our left rear and the winds were kind of blowing at our -- what I thought was our one o'clock, two o'clock coming across like that. so when we shot the approach, and -- again we were probably about 10, 15 feet -- the dust -- we were looking -- we were anticipating the, you know, dust. And uh, so we -- because -- I'm gonna back up on ya. When we first did our initial uh, with the 12 individuals when we went up to 44, we were looking at it thinking, it might be a little dusty. There was a helicopter that was in the vicinity. We got

with Air Attack and asked if they could drop some water up there on it for us for dust abatement. But I don't know how many drops that he made up there for us. You know, three or four. Uh, but then it really didn't hit it in the really dusty spot that we wanted it in.

So anyway, now we're -- we backshoot the approach. We get down to maybe it was about 20 feet or so. Dust is starting to come. We get a little closer to the ground; it's really, really getting dusty. And Roark says, "Man, this is -- this is pretty bad. It's pretty dusty" and then, about that time, the uh, individual on the radio in the tree says, "Hey, can you guys go around, you know, you're just blowing us out here" and "It's really, really dusty". Said, "Yeah, no problem" so we pulled in power, cleared the trees and you know, started going around. So went a couple more times looking at it. And then we saw that, kind of up the hill a little bit and to the right there was kind of a little rocky area where the dust didn't appear to be that bad. So, uh, we thought, you know, hey, we could try it up in here, okay, sure, yeah, give it a shot. So uh, again it was away from the pink ribbon where they wanted us to land. So we set it all up and uh, shot the approach. Got up in there and we landed and it was not as dusty. It was -- it was much better. Got it on the ground. Uh, pulled the throttles back to 100 percent. Beeper trim on, AFCS was confirmed off and then the individuals got out of the helicopter.

So this also created a little bit of delay and we actually burned a little bit more fuel than we anticipated. [CLEARING THROAT], This -- here's where we confirmed that uh, the altitude and the temperature, um, is 5,700 feet and it was 22 degrees. So we knew then that obviously that temperature and that altitude was less than what we had planned for. Um, so our numbers were good. As long as we stayed below our 6,000 and 30 degrees we were -- our numbers were good. And uh, Jim agreed, Roark agreed and I agreed, so -- and uh, so the -- our six guys, they get out of the helicopter. Um, it takes a little while because they've gotta go now and brief the first individuals that we're putting on the helicopter, which we really didn't anticipate that either in the fuel planning. Um, I mean we had -- we did have a reserve and that kind of stuff but it was just more time. And uh, so, all of that, they get the first uh, load of individuals loaded on the helicopter. Everybody's strapped in and uh, all the equipment was loaded. Doors closed, individuals were walking away, they turned and they give me the thumbs up, everything's clear on the outside. And then uh -- and then Jim um, was to check everybody on the inside one last time. He said, "We're ready to go in the back". Got the throttles back up, beeper trim off, AFCS on. Did our before takeoff. And uh, and we -- we departed out of there with the first load of individuals. Um, power was good. Uh, you know the wind was -- was uh, a help. I figured the winds were somewhere around three to five knots, kind of out that direction. Off the nose of the helicopter. Helicopter being here, the winds were out in here I figured.

Stand of trees to the right. Kind of the way the trees were around to the -- to the front.

Our departure was up and then kind of slightly to the right and then just kind of

get her flying and then, you know, off with -- of the mountain we would go and uh, again, paying particular attention to the trees on the right. We departed, went down to 36. did a higher recon again and uh, set up for the approach. The approach was the same approach direction that we had previously done. Uh, everything remained the same at 36. shot the approach, landed, um, everything was good. Uh, the uh -- the -- our helitac crew, the individuals we put on the ground, hoping -- they were waiting -- I give them the thumbs up. They approach the helicopter, uh, they uh, open the door and then, you know, motion to the individuals, passengers, and everybody started to depart the helicopter. Uh, they formed a single file line and then they had uh -- and I can't remember if it was one or two of the helitac crew but they moved the passengers away from the helicopter, outside of the disc and there was a vehicle, a truck parked probably about -- I would say at least 50 yards maybe. Maybe not -- like 35 yards or so. And it was kind of off the helipad um, on another dirt trail or something that went down to that road that I previously talked about.

So they all moved out over to there. And then the uh, helitac crew downloaded all of the equipment, chain saws, backpacks, all their stuff that they had had, and they piled it kind of -- the right main gear is about here, off my right about six feet or so. And they -- they stacked it just outside of that another few feet. So they didn't hump it out from underneath the helicopter, they just piled it right there, waiting for us to depart then they could come back in and get their gear. So uh, they closed the door, um, our helitac crew uh, departed the aircraft area from under the disk. Went back over to the passengers, you know gave us the thumbs up. So we ran a checklist, got everything spooled back up. At this time it was -- it was Roark, myself and Jim were the only three individuals on the helicopter. We departed 36, went back up to 44 and did the -- made another trip. Now we're starting to look at fuel. Uh, becoming an issue thinking that -- we got dark coming and uh, dark was still another hour and 20 minutes away I think at this time. Um, we knew we had, you know, these multiple trips to do. And uh, because of the delay in finding 36, the uh, the extensiveness of the -- of the recon that we did at helispot 44 when we first got up there. The uh, missed approach that we did -- had at 44 because of the dust out and all that. we you know, we knew -- we were thinking we -- probably for safety sake at some point will probably -- during the middle here we're gonna have to go back and get some gas.

So uh, we made an -- and I believe this is when we really started talking about it. and uh, so we went back up to 44. grabbed another um, another turn of -- of people. Flew 'em back down to helispot 36. everything was the same. Uh, the departure out of 44, had plenty of power, um, you know, no -- nothing notable about coming out of there. Uh, nor was there anything really notable about the landing back into helispot 36 with the second load of people. Same drill, uh, everything was exactly the same as the first, as far as procedurally goes. Um, once we were on the ground at 36 that's when we said, you know what, we were looking at fuel. And we still felt like, we had enough fuel to do -- to make these other three turns but it was like, you know, we're probably gonna be pushing our reserve. You

know, and we said, you know, fuel is only 15 minutes away. You know what, it's not worth it. lets just go get some gas. We've got time to do these next three turns. Everybody knows the procedures now. So the uh, the second -- the second turn of individuals was a little quicker than the first turn. And uh, you know, so we felt like we were starting to get the system down. You know, everybody was comfortable with what we were doing. So we went back to Trinity. We landed, shut down and uh, and took on some fuel. Uh, we took on um, I believe we put 1,100 pounds in the forward and the aft and we put 100 pounds in the main. And that put us at 2,300 pounds of fuel.

I think that's what it was, it was right in there. And uh -- but our load count was planned at 2,400 pounds of fuel. So we knew we still had -- we were below our load calc numbers. And uh, for safety. So, uh, then uh, so now we're shut down. The check ride was -- Jim said, "Okay, here the check ride is complete. Roark, you did good". He said, uh -- Jim says, uh, he goes uh, "Well hey" -- how did this go. Uh, "I'll just stay along with you guys if you don't mind. And I'll just act as your crew member in the back since we've got -- we've got a uh -- a routine going on here and we'll just get this done and then when we're done, we'll come back Roark and we'll do the paperwork and uh -- and you know, get your card updated with your uh, 135" and uh -- and Roark said, you know, "Hey Jim, thank you very much man that would really help us out" 'cause you know, now we're -- we've got probably just enough time to do the three turns and get back uh, before pumpkin time. And uh, so Roark said, you know, "Jim, thank you, we really appreciate that. that would really help us out". "No problem" so we get it fired back up. Everybody -- I drank a bottle of water and uh, I'm not sure what Roark and Jim did but uh, if they drink anything or any of that. but uh, so we got it fired back up. We went up to helispot 44 and uh, did a high area recon, confirmed everything. The winds were the same. Uh, everything was good. Shot the approach. Nothing notable about the approach. We landed right back to the little rocky area. Everything was good. Um, no issues.

And then uh, so we loaded up the uh, next individuals. That went relatively quick. Uh, 'cause we had the system down now. And uh, the uh, helitac crew closed the door. Uh, walked out from underneath the rotor system, gave me the thumbs up. Uh, Jim just reconfirmed everybody was secured in the back of the helicopter. He uh -- he said, "Everything's secured back here. we're ready in the back" and then we went through the checklist, throttles, beeper trim, AFCS, uh, 36 was set and uh, uh, radios frequencies. And uh, so then we uh, Roark pulled in, came up to a hover. Checked the power, power was good. Um, and then pulled in more power. We started the descent and uh, had a -- nothing notable about any of this. The climb was good. You know, we had plenty of power. And then uh, started to nose the helicopter over. Felt the nose tip a little bit, just like normal. Everything is normal to this point and then all of a sudden I felt the nose dip again and it dipped harder this time. And uh, and then the aircraft started to settle and we weren't -- we weren't climbing now we weren't really getting any more forward airspeed. And uh -- and then I -- I sensed the uh -- I could hear the rotor RPM's

start to decrease. And I was outside the bubble, outside my window, clearing the trees, the stand of trees that was on my right. And uh --

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FEMALE VOICE: [Unintelligible].

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MR. COULTAS: And uh, so I'm watching the trees. I heard the rotor start to decrease. I came inside, I looked at the uh, rotor RPM and I called out 103 percent. And uh, and so now Roark's trying to get her to fly. Trying to work her forward but we're still descending. Now, we start to descend down below the trees now. And then uh -- and I could feel the rotor -- hear the rotor RPM decrease some more. I called out 100 percent and uh -- and then Roark -- Roark said something, you know, I can't really -- I can't recall exactly what he said, uh, but then um, and then he started -- started tap -- we started hitting the tree. And it was -- I think it was out on the -- about the ten or 11 o'clock area. Um, I don't think it was to my right rear because we were moving forward. And again, I'm in and I'm out, I'm in and I'm out. And I'm watching and the throttles all the way up and uh, and -but I did notice debris, sticks and you know, trees, that kind of debris and the aircraft started to do, you know the shutter back and forth, back and forth. And then uh, and then I said -- I said, "Oh, fuck" and then uh, we started settling in more. And -- and I knew -- I knew at that point there, that we were gonna crash. That's when I knew that we -- 'cause there was no place to land in there. It was real steep, it was lots of timber. Uh, there was no suitable landing area for a large helicopter. The only suitable landing area was the one that we just took off from and it's behind us now.

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So I knew at that point there we were gonna crash. And that's where I go black. I don't remember anything after that. um, I don't remember impacting the ground. I don't remember any sounds, uh, any noises, um, I don't re-- I don't remember nothing. I don't know how I got out of my seat. I don't know how I got out of the helicopter. Um, I didn't see anybody, I didn't hear anybody. Um, I -- that's where I go black. I can't -- and I've -- for the last couple of weeks I've been trying and trying to remember and I can't. [CRYING]

32 33 34

KELIHER: It's okay. We're piecing together what we have too.

35 36

MR. COULTAS: So, [SIGH].

3738

KELIHER: So what's your next memory?

39 40

MR. COULTAS: So I remember then being out of the helicopter. And I remember being on fire. And uh, I remember trying to put myself out. Excuse me.

41 42 43

KELIHER: You want a minute?

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45 MALE VOICE: Let's take a break.

1 FEMALE VOICE: You wanna take a walk? 2 3 MR. COULTAS: Yeah. 4 5 MALE VOICE: We'll stop these. I'm stopped. 6 7 [BREAK] 8 9 MALE VOICE: You there Jim? 10 11 MALE VOICE: Yeah, when he gets back to talk to you again, you might [unintelligible] 12 a little closer. 13 14 MALE VOICE: Okay, we'll put it closer to you. They're still in here they're just --15 16 MALE VOICE: [Unintelligible]. 17 18 MALE VOICE: No problem. 19 20 MALE VOICE: Alright, we're recording. 21 22 MR. COULTAS: Okay, so uh, like I said before they uh -- the last thing I remember was uh, being out of the helicopter and uh, I was on my feet and I was on fire and it 23 24 was burning back up through my legs. Um, so I uh -- I started beating on my 25 legs. Uh, I think I even fell to the ground, I rolled around. I got my flight suit 26 down and -- uh, down around my boots and uh, and then the fire was out. Um, 27 uh, I think I stood back up or -- I'm pretty sure I stood back up. Um, and then I 28 started hearing voices and people getting closer to me. Um, and then uh, um, I 29 mostly recall -- there was about two or three people that got to me but I mostly 30 recall um, a girl that uh, she got to me and she just started talking to me. And uh, 31 and I recognized the voice 'cause she was part of our helitac crew. And uh, that --32 she's Jessica Huntoon who uh, who I really remember. And she talked to me for 33 the next 30 or 40 minutes until the Medivac got in there. But uh, so I remember I 34 turned around and I looked at the helicopter and I saw it was completely on fire. 35 And uh, smokes bellowing out of it and it exploded and I remember saying, you 36 know, we need to get further away. 37 38 So we moved a little bit further away from the helicopter and then uh, Jessica uh, laid me 39 down on the ground and uh, she started talking to me. She just kept telling me, "Hey, Bill it's gonna be okay. You're okay" you know, "Everything is fine". 40 41 Well, let me back up. When I was standing up, uh, before they got to me, after I 42 had put myself out. I looked down at my left arm and I saw that my -- the skin and everything was just hanging off my left arm. I looked at the top of my left 43 44 hand and I saw all the skin was pretty much off my hand and I could see the bones 45 in the top of my hand. I kind of rotated it over and looked at the palm and again I

just saw more bone and flesh hanging and I -- that's kind of when I knew at that

point there that I just -- I just really hurt myself. Uh, didn't know the extent of the rest of my injuries but uh, I knew my left arm was really messed up, my left hand. And uh, so then they get to me and Jessica laid me down on the ground. And uh, she's just talking to me. She's telling me everything's going to be okay. Bill you're okay. You know, you're -- you've got a little bit of injuries but you're gonna be okay. And uh, and then I started getting really, really cold, uh, very cold, uncontrollable shaking and I'm freezing. And I told Jessica, I said, "Jessica I'm cold". So she started barking and uh, they brought uh, I don't know what -- blankets or jackets or something over and they -- they covered me all up and I -- with these -- with whatever it was. And I remember starting to get a little warm. And uh -- and then somebody brought down a backboard. She said, "Bill we gotta put you on a backboard. We gotta get you up the hill" and uh, I was like, "Okay". So they uh -- they kind of rolled me and lifted me and they got me on this backboard.

1 2

Um, I do remember it was pretty steep. Um, you know, pretty rough terrain. Uh, but they got me on. Uh, they strapped me down. And uh, four of 'em started carrying me up the side of the hill. Uh, we got partially way up the hill and somebody slipped or something and uh, they dropped me. And uh, I kind of slid off the backboard and onto my left arm. And uh -- and I remember that just being extremely painful, onto my arm. And uh, Jessica, she's saying, "Bill, I'm sorry, I'm so sorry" you know, and I'm like, "You know, it's okay" and uh, so they get me back on the backboard. They get me up to the top of the hill. And uh, she's telling me -- again, she's just reassuring me that everything's going to be okay. You know, "Bill you're okay" well I kept asking -- I kept asking about the rest of the guys, you know. And uh, nobody would tell me anything other than, "Bill it's okay". Uh, I -- can't really remember thinking much about it. But uh, then she said, uh, "Hey, Medivac's gonna be here in a little while". I was complaining about being cold. They covered me up. Uh, and then I asked -- I told Jessica -- I started getting real sleepy. And I wanted to go to sleep and I asked Jessica, I said, you know, I told her, I said, "Hey, I just wanna lay here and go to sleep for a little while until the Medivac gets here" and she got real stern with me. She almost kind of yelled at me. She said -- she started going, "No, don't you go to sleep. You stay right here with me" and uh, I was okay, well, you know, you don't have to get mad about it. and uh, she uh, she just kept talking to me.

So I stayed awake and uh, we just started talking about anything. Um, I can't really recall exactly what we uh -- what we talked about. But I -- you know, it was just stuff, uh, she knew that we road motorcycles so, you know, we were gonna go riding and you know, do all this -- just -- I don't know. She just kept assuring me that everything was gonna be okay. So then I remember -- I remember hearing a helicopter out in the distance. And then she said, "Okay, your Medivac's inbound, it'll be here on the ground in just a few minutes". I just go, "Okay" and uh, and then I remember the noise getting louder and louder. And then, I remember her lying over the top of me to shield me from the rotor wash from the helicopter. The aircraft landed. She said, "Bill we're gonna load ya". They lifted

me up. They slid me in. I believe it was the left rear side of the helicopter. And uh, uh, got me in, got me strapped down. Uh, I believe there was two nurses on the inside. Uh, you know, they asked me my name, my age, uh, that kind of stuff. So I was able to talk with them. Um, I don't remember much about the flight from uh, from the accident site to wherever we landed. I have -- I do remember uh, landing uh, some place. And uh, they uh -- they got me out of the helicopter and they put me on a -- it was a wheeled gurney and they started wheeling me down. I recognize it to be a sidewalk because of the grooves in the sidewalk and the wheels would go chachook, chachook, chachook. I remember hearing that. and I remember it being a little dark. You know, it was kind of almost nighttime now. And uh, and then we went through -- I remember hearing these doors open. Electric doors and uh, it got real bright going down this hallway.

And I remember the bright lights and then uh, wasn't too much longer after that, they made a right turn and went into a room and it was really bright. And it was chaos. There was probably about I don't know how many people were in there but it seemed like there was a lot. And uh, they're -- they're barking out orders and all kinds of stuff. And then I remember um, a guy -- well I assume he was a doctor. Uh, kind of got down and got close to my face and he said, "Do you know your name?" and I said, "Yeah" and I gave him my name. he was asking me how old I was. He said, "Do you remember what happened?" and I said, "Yeah" you know, "I was in a crash. A helicopter crash". And then uh, and then that's it. I don't remember anything after that. Uh, the next thing I do remember -- really remember was uh, waking up in the ICU uh, and -- at U.C. Davis and my wife was there and that's -- kind of remember bits and pieces when I was unconscious. People would come into my room and you know, "Hey Bill" but you know, I can't really recall anything -- any specifics. Um, for that time that I was -- that I was out.

KELIHER: And then from there until now, what's been happening?

MR. COULTAS: Uh, lots of wound care. Uh, extreme pain. Well, okay, so uh, I wake up. And uh, my wife is there. And uh, uh, I remember just being in lots and lots of pain. I had all these hoses and cords and IV's and all this stuff all over me. Had no idea what all this stuff was. Uh, I remember Chris talking to me and telling me, "Hey, you got life support on you" you know, uh -- "You got -- just be still, don't talk" and uh, you know, "Try not to move" and any of that kind of stuff. Um, and then uh, they started removing -- they started removing like -- I think they took off the life-support first. Uh, but they wouldn't let me talk for a little while. I could -- I don't know -- remember --

MRS. COULTAS: Well actually they -- one of his IV's infected so we had to have a --

MR. COULTAS: Okay, okay. I don't remember it getting infected. I remember the infection afterwards. I do remember --

1	MRS. COULTAS: That's a whole different
2 3	MR. COULTAS: Oh, okay, well then I don't
4 5	MRS. COULTAS: [LAUGH]
6 7 8	KELIHER: Just more there after what happened, of your recollection or did you talk to anyone about the accident?
9 10 11 12	MR. COULTAS: No, I've been specifically told that I can't talk to anybody so we haven't. I've been told that I can't read newspapers, which I haven't. um
13 14	MRS. COULTAS: His TV was broken in his room
15 16	MR. COULTAS: My TV didn't work in my room. Um
17 18	MRS. COULTAS: [LAUGH], That was nice for me
19 20 21 22 23	MR. COULTAS: No, I uh, I just remember okay and then I so I woke up. Then the physical therapy I was awake for that day. Physical therapist came in. they asked me if I wanted to get out of bed. And I was like, yeah, man, heck yeah. I wanna get out of this bed. So they uh they got a bunch of stuff disconnected from me and uh
24 25	MRS. COULTAS: What they did is unconnected it and put him on a roll away.
26 27 28 29 30 31	MR. COULTAS: So they had one of these little hand you know these little roller cart dealios where you stand up next to it and it has wheels. So I remember uh, getting myself out of the bed and that was really painful. And I stood up and the whole world was spinning backwards and sideways and uh, it made me nauseous, uh, but I stood there for about probably about 10 minutes.
32 33	MRS. COULTAS: I don't think you made it that long 'cause you were throwing up all over the place.
34 35 36 37 38 39 40	MR. COULTAS: Okay, so uh, anyway, I uh I got back down in bed and they hooked me all back up. And then uh, my stomach one of the other things I remember is my stomach was huge. Uh, just this great big ball looking thing. I didn't even really recognize my stomach. And uh, and then that night it was about 11 well, then they pulled my catheter that day?
41	MRS. COULTAS: Catheter was another full week.
42 43 44	MR. COULTAS: Well then see I don't remember that. I'm I'm ate up here. because -
45 46	MRS. COULTAS: [LAUGH]

1 2

MR. COULTAS: I remember they pulled my catheter and then I -- it was --

MRS. COULTAS: During this time he would remember us coming in, bits and pieces, but we would come in for breakfast and then they would completely deltoid and Fentinol for wound care. And when we would get to come back four and a half hours later he didn't remember that we had been there, ever.

MALE VOICE: That's [unintelligible].

MR. COULTAS: So maybe I don't --

MRS. COULTAS: I mean we would [unintelligible] and all of that but --

KELIHER: Your time and space continuum was a little off.

MR. COULTAS: Yeah, I'm all -- I'm all -- uh, I just remember a lot of pain. Um, mainly was uh -- when they cleaned my face and my ears and my neck, uh, four times a day. Um, they would shave -- they would shave all the skin off my neck and my face. That was extremely painful to the point where I would be screaming. And I would be begging for them to stop. And I was all jacked up on lots of Fentinol and Dilotin, uh, Methadone and the pain killers. And uh, and it still wasn't -- wasn't enough. Um, it really -- that's -- I mean short of, you know the first time I went poop and all those kinds of things. I really don't remember --

FEMALE VOICE: Big milestones. [LAUGH] --

MR. COULTAS: I really don't remember much else. Well -- I mean it was. I mean we can go down that -- 'cause that's when I really knew -- after I did that, that's when I knew -- I knew that I was gonna live. You know, up to that point uh, not knowing the extent of how bad I was hurt. And nobody would tell me any -- I kept asking, you know, hey, what's the stat -- you know, where's Roark? You know, where's every -- nobody would tell me anything. And uh, it wasn't until about day three or day four, that finally I got pissed off and I said, "Some -- goddamn it, somebody better talk to me and tell me something". And uh, so everybody quickly left the room and my wife came in and she told me that -- she told me that Roark didn't make it and uh, you know, some other individuals in the helicopter that didn't make it either. And uh, so that was the first time that I knew that anybody had died. And uh -- it was tough --

MRS. COULTAS: But we had to tell him four times. He still the next day would wake up and ask again and the next day would wake up and ask again.

MALE VOICE: Sure.

1 2 3	MRS. COULTAS: Which was why we put it off as long as we did. 'Cause we knew when he couldn't remember breakfast to lunch, he wasn't gonna remember day-to-day.
4	
5 6 7	MR. COULTAS: I took I guess I took a shot to the head. Um, I was seeing double of everything. Uh, I had some pretty good cuts and scraps right here on the side of my eye. Um, I took a shot to the uh, chest, left side chest area. Um, they were
8	uh, pulling blood out of my lung. Uh, I did take a shot to my right knee. And
9	then it was extremely sore outside of the burn. Uh, bruised, you know, down to
10	the bone type of thing. I don't know what that's all about. Um, I got a problem
11	with my shoulder right now. Um, like a rotator cuff or something. But uh, yeah, l
12	don't I don't know how any of that happened or what.
	don t I don't know now any of that happened of what.
13	WEI HIED. Has been called the second state of the second s
14	KELIHER: Um, have you talked I know you're we couldn't get the message across
15	instantly to you. But have you and it's fine if you have, I just want to know.
16	Have you talked to anyone about the accident?
17	
18	MR. COULTAS: No, other than you know, just like this right here with my wife, trying
19	to figure out what happened.
20	
21	KELIHER: So you've run through the scenario a few times
22	
23	MR. COULTAS: Through my mind and you know, I try to you know, tell Chris, you
24	know
25	
26	MRS. COULTAS: We never had backed up on time. He always was concentrating on
27	that minute, I think
28	
29	MR. COULTAS: Yeah, from the time
30	
31	MRS. COULTAS: 'Cause I didn't know the backups I never thought about backing up
32	
33	
34	MR. COULTAS: I know there's been a lot of people that have been wanting at me, you
35	know and uh, um, media, a lot of media. And they were doing stupid things.
36	They would tell they would call into the nurse's station and tell them they were
37	family members. And they were trying to play all these little games and uh, you
38	know, people that would come in and you know
39	,
40	MRS. COULTAS: He hasn't talked to any media. And I have actually used you as my
41	excuse. That we can't.
42	CALCULATION OF THE CONTROL OF THE CO
43	MR. COULTAS: Yeah, somebody called me yesterday, an insurance guy, uh, for
44	workers comp. I didn't know who this guy was. Uh, he wanted me to talk to him
45	about the accident yesterday. And I told him I couldn't I couldn't talk to
15	acout the decident yesterday. This I told little I couldn't late to

1 anybody until after I talked to you guys. So I mean, you know, we've tried to stay 2 with that. uh --3 4 KELIHER: Do you know anything surrounding the accident, circumstances that aren't 5 your direct recollection? 6 7 MR. COULTAS: Like, what do you mean? I don't know. 8 9 KELIHER: Have you heard about how many fatalities there were? 10 11 MR. COULTAS: Yes, I have been -- I was told that uh, there was a total of nine 12 fatalities. Uh, I don't know the names of the individuals. Um, other than Jim and 13 Roark. And actually I take that back, I know one, uh, Matt Hammer, his dad had 14 called our house and -- mainly in support and just -- he uh, his was, you know, if 15 you guys need anything at all, he would -- he asked me if we had enough 16 firewood to get through the winter. He'd bring us firewood. You know, that kind 17 of stuff. But, I mean really no. 18 19 KELIHER: Okay --20 21 MR. COULTAS: I don't think anything out of the ordinary. But -- I'm hoping that, 22 through all this, you can tell me what happened maybe. You know, I'm hoping 23 that at the end of this that maybe you can shed some light for me. And make me 24 feel a little better as I leave this room. I don't know if you have the latitude to do 25 that, but -- I'm hoping that through this, you know, I can learn something too. 26 27 KELIHER: Yeah, um, what I'm gonna do now is go through specific questions. Again, they're comprised of just boiler plate questions that we ask during every accident, 28 29 along with some specifics of things that we've learned. Which is not to say that 30 all these are going to be leading you in a certain direction. That's not the 31 intention at all. it's just to try to get as much information, raw memory that you 32 have, that we can learn from -- so I'll start with the accident day of -- do you 33 remember what time you woke up? 34 35 MR. COULTAS: Mmm, what time did I get up? Uh, I usually get up about six. I mean I'm pretty consistent when I'm on the road. Um, you know, I get up about the 36 same time every day. Make a pot of coffee. Flip on the news, you know, uh, I 37 38 usually uh -- take a dump and then you know -- and then uh, take a shower. Get 39 dressed so it was about six o'clock, six o'clock in the morning. 40 41 KELIHER: Okay, so morning after you take a shower, what's your procedure? 42

MR. COULTAS: Uh, pack my suitcase uh, and then meet uh, the other pilot out in the

7:25 was uh, link up with car time.

parking lot at the car. And uh, I think we met that morning I want to say it was at,

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1 KELIHER: You pack your suitcase every night? 2 3 MR. COULTAS: We take it with us every day. Every morning, we clean out our -- we 4 keep our hotel room. We don't check out of our hotel room. But we take all of 5 our bags and everything with us. Because we don't know if we're coming back. 6 7 MR. TAYLOR: SOP. 8 9 MR. COULTAS: Uh-mm. 10 11 KELIHER: 7:25, meet up and then what did you do? 12 13 MR. COULTAS: Uh, we just drove straight up to the uh, helibase which was about a six 14 or seven mile drive, ah, maybe further, I don't know, 10 miles or so. 15 16 KELIHER: And then you arrive there --17 18 MR. COULTAS: Arrive there, uh, unbutton the helicopter, start preflight. And then 19 mainly just do as much of the preflight as you can. Hopefully you can get it all 20 done and uh -- see that morning I believe we did get her all done. Then we 21 walked down, we did the morning briefing and uh, and then they were bringing 22 breakfast up to the helibase every morning. So we did the morning briefing and 23 then we were able to eat something and that's -- at the morning briefings where 24 we get our load calc numbers. So then we go back up to the trailer. Uh, our 25 numbers were the same that day as they were previous. So there was real -- no 26 changes to the uh -- to the load calc other than the date, you know, that kind of 27 thing. And uh --28 29 KELIHER: How was the food they'd been serving? 30 31 MR. COULTAS: It was alright. I mean it was -- it was good. 32 33 KELIHER: So you guys weren't starving yourselves? 34 35 MR. COULTAS: No, no, no, I mean we're -- no, and that's one of the things about 36 working for the forest service is, I think they've got us -- I think they have a 37 regulation in that they don't want you to ever get hungry. 'Cause they feed ya all 38 the time, you know, you have more food than you know, you care to have. 39 Sometime, you know, it's just -- it's too much actually. You can't eat all your 40 lunchy, you know, that kind of thing. So, no, there's -- food was good there was 41 no problems. 42 43 KELIHER: First flight assignment of the day, you said you did water dropping. 44 45 MR. COULTAS: Yep.

1 KELIHER: Do you know what time you got there? 2 3 MR. COULTAS: What time did we get there? It was mid afternoon. Um, it was in the 4 mid afternoon time. 5 6 KELIHER: And on the conclusion of doing your water drop, how do you know that all 7 the water was out of the belly? 8 9 MR. COULTAS: A couple -- I mean there's a couple of ways. One, we have a quantity 10 indicator. When you release all your water it goes down to zero. Um, two, you can feel it in the amount of power it's taking you to fly. Um, just, you know, 11 12 that's mainly it. uh, and you -- and three, I mean you're looking out the window 13 when you're dropping your water and you're holding the button. And you can see 14 the water go away and then you're still holding the button in and there's no water 15 no more, you could, you know, relatively assume that all the waters out of the 16 tank. And then the doors close automatically once you release the switch. So, a 17 couple of different ways. 18 19 KELIHER: Is there any possibility that there could be water left over in the tank that you 20 wouldn't know about? 21 22 MR. COULTAS: No, no. No because even if -- no, there wouldn't be. 23 24 KELIHER: Okay. You touched on this but when exactly in the -- not necessarily time 25 wise or anything. But when in relation to your day did you know that you were 26 going to go to H44 to pick up passengers? 27 28 MR. COULTAS: It was probably around four o'clock, 4:30 probably somewhere in 29 there. 'Cause then at -- once we knew we were going to do that mission, well --30 we knew we were doing the mission but we didn't know exactly where it was at. 31 So maybe the correct answer would be, we knew we were doing the mission 32 probably about four or 4:30 but might have been a little bit later that we were 33 actually going to 44. But it wouldn't of been too much later 'cause it all part of 34 the planning, uh, you know, developing the plan before we ever even went up 35 there. 36 37 KELIHER: So was there -- a gap of time after the water drops and you get back where 38 there was down time? 39 40 MR. COULTAS: Oh, yeah, yeah, from the time we finished the water drop until the time 41 we picked up this next assignment was -- gees, probably a good two or three 42 hours at least. 43 44 KELIHER: Okay. And you already answered this. You had not been to H44 before. 45

46

MR. COULTAS: No --

1 2 KELIHER: Had you been to H36? 3 4 MR. COULTAS: No, never been there either. 5 6 KELIHER: When you first were going into 44 --7 8 MR. COULTAS: Yes. 9 10 KELIHER: You said that fire activity was moderate to light. Can you describe the ash in 11 the area? 12 13 MR. COULTAS: Um, the -- what I was talking about earlier, in the fire, that was when I 14 -- when I was dropping water on that -- that previous division. 44 was no - wasn't 15 near the area that we were dropping water on. Earlier in the day. The ash in the 16 area -- uh, I don't recall any ash in the area. Um, I mean around the helispot it 17 didn't really -- I mean it seemed like there was some fire and stuff out there but 18 there wasn't -- I mean I don't recall any ash being in the area. 19 20 KELIHER: So throughout the whole day describe the smoke activity and the ash in the 21 areas -- anything abnormal? 22 23 MR. COULTAS: No, no, it was actually -- for that particular area and what it had been 24 doing in the previous days and weeks, it was actually light. Visibility was very 25 good. Um, uh, much better than it had been in previous, so --26 27 KELIHER: And -- I'm going to skip forward a little bit. Prior to the accident do you 28 remember or recall what you called out for the weather? 29 30 MR. COULTAS: What I called out for the weather? 31 32 KELIHER: Yeah, as far as the OAT, do you remember what it was? 33 34 MR. COULTAS: Uh, 22 degrees when we were up on the hill. 'Cause I did look down 35 once we were on the ground and we had landed at 44. I did look at and saw 5,700 36 feet and then I looked up and saw 22 degrees and uh -- and then just confirmed 37 that, that our load calc was based on 30 and 6,000. our numbers are good. And 38 then we were below the 2,400 pounds that we had calculated on the load calc for 39 fuel. At that point there, we were around uh, 1,900 pounds of fuel or something 40 like that. I mean I just kind of glanced at it but I knew that we were below the fuel because we never took on that much fuel back at refuel. So, I knew we were 41 42 below it. 43 44 KELIHER: You already described the first passenger flights from H44 but I'm going to 45 ask for some specifics. And if you don't remember, just --46

1 2	MR. COULTAS: Okay.
3	KELIHER: That's fine. Do you remember what the NG speeds were?
4 5	MR. COULTAS: No.
6 7	KELIHER: Main rotor speed, do you remember?
8	MD COLUMN C. I
9 10	MR. COULTAS: Um, you know, we normally fly set it at 106 percent. I mean it's not uncommon for it to droop down to 105 or 104. You know, uh, but no, I don't
11 12	remember specifically what it was when we were coming out of the hole. Nothing abnormal, everything was normal.
13 14	KELIHER: Okay, the gauges did they ever reach their engine topping speed?
15 16	MR. COULTAS: Um
17 18	KELIHER: At H44?
19	
20 21 22	MR. COULTAS: Not that I recall. Again everything was normal on the previous lifts. Uh, sounds performance, uh, she did exactly what she uh what the book said she would do.
23242526	KELIHER: So when you say that you experienced droop of a few percent, do you remember if you did on the flight—or not 'cause it's such a non event?
26 27 28	MR. COULTAS: Yeah, it's such
29 30	KELIHER: Do you remember any of the engine torques percent
31 32	MR. COULTAS: I remember uh, 106 is rotor RP uh, I remember when we did the uh on the uh on the incident, we picked up and we were seeing about 72 74
33 34	percent when we were hovering. And that's when I called out power was good. Because we know that we need uh, a minimum of 15 percent torque from max
35 36	torque available versus power required or max power available versus power required. To transition from in-ground affect to out of ground affect. So, we had
37 38	20 uh, we figured that our uh, our max torque was 96 percent, 94 to 96 percent. So, we had plenty of power. Um, to transition to in-ground to out of ground.
39 40	KELIHER: From doing the load calcs prior, you figured the 94 to 96?
41	
42 43	MR. COULTAS: Uh-mm, yep, yep.
44 45	KELIHER: Okay, and then you had attained 72 and 74?

1 MR. COULTAS: 72 uh, 72/74, that was when we picked it up to a hover, in-ground 2 affect. 3 4 KELIHER: Okay --5 6 MR. COULTAS: And then -- and then looked at it. Because that's really where you 7 make your determination of am I going to commit to this takeoff or am I not. And 8 if you don't have the power to transition from in-ground affect to out of ground 9 affect then you terminate it. you put it right back down on the ground. 10 11 KELIHER: So those are the numbers you got for your [unintelligible] when you were 12 first departing? 13 14 MR. COULTAS: That's when I would -- say that again? 15 16 KELIHER: The first two passenger flights were 72 and 74 --17 18 MR. COULTAS: Yeah, they were all right in there. Um, it's a -- it's a analog gauged. 19 So when you pull it in, if you get any kind of wind or if you mix any kind of 20 peddle input, the gauge sits there and moves on you. So you kind of look at it and 21 you -- you know, you do your best um, to interpret what it's saying, but yeah, they 22 were always the same. 23 24 KELIHER: Okay. 25 26 MR. COULTAS: 72/74 percent. [TO WIFE] I'm trying honey but my leg is killing me. 27 I'm sorry. 28 29 KELIHER: And your primary job as second in command was to do what during those 30 flights? 31 32 MR. COULTAS: Uh, monitor systems, um, clear the -- the right side of the helicopter. 33 Um, you know, uh -- power management. Insure that he doesn't pull too much 34 power. Uh, if you go above your 94 percent then all -- the rotor will start drooping. Um, systems managing -- or monitoring the systems. Um, uh, power 35 36 matching, matching the torques, throttles. Um, making sure that the passengers 37 were uh -- the coordination between our ground crew and the passengers -- that 38 the passengers were loaded. The aircraft was ready for flight. I get the thumbs up 39 from the ground crew. Then I come back inside the cockpit and I say, "Okay, 40 we're ready" you know, "We're clear on the outside, ready for takeoff". Um, you 41 know, those types of things are my responsibilities. 42 43 KELIHER: Will you describe the refueling at Trinity. 44 45 MR. COULTAS: Uh, we came in, we landed. We shut down. They uh, drove the fuel truck down to the pad. They -- being the fuel truck driver. Um, the helitac crew 46

pre-positioned individuals, helitac individuals. Uh, manning fire extinguishers, 2 one near the fuel truck. One off the nose of the helicopter. Um, I drank some 3 water. Um, I know uh, Jim -- Jim had said, as we were spooling down, while we 4 were still on the intercom, hey, you know, check rides complete. Roark he did a real good job. Um, and then that's when we uh -- Jim said that he would just stay on board, act as the passenger -- crew member for us. And then we'd do paperwork -- Jim would do the paperwork for Roark when we got back. Uh, you know, earlier in the evening and uh -- you know, Roark said, "Hey Jim" you know, "Thanks a lot, appreciate it" you know, "You don't have far to drive do 9 10 you?" and Jim said, "Oh, no, I just live down here in Reni, it's not too far here". I think he said -- I think he said it's just around a half an hour from here. So uh, 12 um, it was uh -- there was no dilly dallying around, you know, 'cause we -- we 13 knew we had to get back up on the hill and we had three more turns to make. So, 14 you know, we wanted to get the fuel and get out. KELIHER: Do you keep the power on, any kind of battery connected to power?

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MR. COULTAS: No, um, the only time you do -- and yes, we did in this case because we -- we monitor how much fuel is going onboard the aircraft. If you want to just fill the tanks, then no you don't have to. But we did in this case here.

20 21 22

KELIHER: And you're doing that by gauges inside the cockpit?

23

MR. COULTAS: Yes, yep.

24 25

KELIHER: Okay, and who is doing that --

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MR. COULTAS: Who did that?

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KELIHER: It's okay, if you don't remember.

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MR. COULTAS: Yeah, I -- you know, I don't recall 'cause we were all sitting there. Roark was there, I was there. Jim was sitting right here. we're talking. The guys got it plugged in and then we're watching um, I think -- I wanna say Roark did 'cause the switches are on his side of the cockpit. And then as were just sitting there talking, you know, as soon as it got up to the 1,100 pounds, you know, shut off that -- fuel going into that tank. And uh, and the center refuel, that's even further on his side. I have to reach all the way across. Extend my left arm completely and kind of bend way over to get to it. I wanna say -- I don't recall. I wanna say Roark did it but I -- I can't recall specifically.

40 41 42

KELIHER: Did you ever do pressure fueling?

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44 MR. COULTAS: That's what we were doing.

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46 KELIHER: You were doing pressure fueling?

1 2 MR. COULTAS: Yeah. 3 4 KELIHER: Okay. Although you did get out and got back in --5 6 MR. COULTAS: Yes -- yeah, once we were done with the fuel, we shut everything off. 7 We did get out of the helicopter, you know, just to stretch our legs a minute, drink 8 a bottle of water and then come -- you know, just make -- walk around the 9 helicopter and make sure nothing was dripping and just basic stuff. 10 11 KELIHER: How did Roark do on his check ride? 12 13 MR. COULTAS: Did good, he did real good. There was no problems. Roark was really 14 smooth, you know, Roark is -- Roark is a uh -- he's real methodical. Uh, Roark is 15 an old logging pilot and I've flown with a lot of different guys. And some guys 16 are -- you know, they just yard in the power and they muscle their way out of 17 things. But that's not how Roark flies. Roark flies very smooth, very controlled 18 on his power. Um, you know, uh, yeah, Roark did very good. But Roark -- I 19 mean he'd flown people before, uh, when he worked with Columbia. I mean he 20 did work at an ATP. You know he'd done off shore stuff, IFR, I mean work is 21 very experienced. And he did a great job on his briefing, covered all the stuff, I 22 mean -- you know, I thought he did really good. I didn't see any problems. 23 24 KELIHER: He was PIC for the whole time after the water drops. So on the --25 26 MR. COULTAS: Correct, yeah. 27 28 KELIHER: Okay, you've already described your approach into H44 but I just want to 29 reiterate that it was the same as the last two times? 30 31 MR. COULTAS: Right, yep. 32 33 KELIHER: And can you go more into detail on the landing? 34 35 MR. COULTAS: Um, where and when --36 37 KELIHER: H44 uh, just prior to the accident. 38 39 MR. COULTAS: Uh, coming back from refuel? 40 41 KELIHER: Uh-mm. 42 43 MR. COULTAS: It was -- we landed back into the little rock area. Um, dust wasn't an 44 issue. Um, the winds were relatively the same. We figured somewhere around 45 three to five knots. Um, there was a little bit of wind there. You can kind of feel it. you could see the tops of the trees moving. Which -- we like, you know, the 46

61 loves a little bit of wind and as soon as you put a little bit of wind in those blades, it makes a big difference. And so, you know, we're constantly looking around for that wind to take advantage of it. Just so happened it happened to be out -- we figured it was out at our one or two o'clock. Somewhere out in there. Based on, you know, the way the trees and everything were.

KELIHER: When they were doing the passenger loading, I know Jim would be able to get a better visual than you. But did you look back at them?

MR. COULTAS: Yes. I look -- I watched 'em approach the helicopter. 'Cause I'm leaning out the window. They were all in a single file line. Um, they were all carrying their own packs and they would approach the door and then, um, when they got to a specific point at the door they would all -- somebody -- one of uh, the helitac crew would take their pack and they would pile 'em right there next to -- just outside the door. Neatly, and then the individuals would get onboard the helicopter. And then there was uh -- one of the helitac crew would tell them specifically what seat to sit in. so I was out the window, looking as they came in. I gave 'em the thumbs up to come in. and then as they were boarding, I would turn all the way around and I would look back this way and as they were placing them in their seats. So I was both sides, looking outside and looking inside.

KELIHER: And then when they placed them in the seats, how does -- how does that work? What do they do?

MR. COULTAS: They just tell 'em where to sit. You know, he points, that individual sits in that seat. And then uh -- and then they start working on their seatbelt. And then if they have problems then the helitac crew individual would come over and actually do their seatbelt for them. Shoulder harnesses, seatbelt and there was a few that did have problems. They couldn't figure 'em out. And uh, so the helitac individuals would do their seatbelts for them. Most of the individuals did it themselves.

KELIHER: Do they show them how to release it?

MR. COULTAS: Uh, I believe so. I believe it was all part of their briefing also. I mean 'cause part of the briefing is, you know, how to release the seatbelts and all of that kind of stuff. So, I would relatively assume that, that had all been taken care of.

KELIHER: Do you know if your seatbelts were the same as the passenger seatbelts?

41 MR. COULTAS: Uh, you know what I can't recall. I don't -- I don't remember.

43 KELIHER: That's fine.

MR. COULTAS: I don't remember. That's kind of a silly question not to know, but -- never thought about it.

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2	KELIHER: Are you aware of who specifically briefed the passengers?
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4	MR. COULTAS: No, I do not know. It would of been one of those six individuals that
5 6	we put up on the hill. Of the helitac crew.
7	KELIHER: So what were Jim's duties as being part of the crew
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9 10	MR. COULTAS: Um, to insure that the passengers were seated, safely in their seats. That the uh, seat all individuals had their seatbelts on. That the seats that were
11	empty, those seatbelts were secure. That there was no loose items around the
12	cabin area. And that the uh, gear that was loaded in the uh, back of the helicopter,
13	in the box, that it was loaded and then the um there's like a big uh, bungee cord
14	um, net thing that goes over the top of it. that that was all secure. And then uh
15	and then, his responsibility was to verbally and/or with a thumbs up, indicate to us
16	that the cabinet area was secure for takeoff. And for landing
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18	KELIHER: And he's on com
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20	MR. COULTAS: And he was on com also.
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22	KELIHER: Anyone else?
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24	MR. COULTAS: No, nobody else was on com.
25	
26	KELIHER: Do you brief any performance members before takeoff?
27	
28	MR. COULTAS: Do we brief any performance
29	
30	KELIHER: Between each other or Jim?
31	
32	MR. COULTAS: No, not before takeoff. We we run through a checklist, a before
33	takeoff checklist. And that checklist doesn't have you uh, specifically state any
34	numbers.
35	
36	KELIHER: Looking over the manifest, do you talk about the load?
37	
38	MR. COULTAS: The uh the load um, number was given to us on those individuals
39	that got onboard the heli onboard the helicopter along with their gear. So they
40	would they would uh, tell us you know, hey 2,850 or whatever the number was.
41	And uh, and then as and you take that number and compare that with our load
42	calc number based on the uh, temperature and the altitude as long as that number
43	was less than, we were good to go. But again, we had so much safety margin
44	built in that we never exceeded that number never exceeded what our load calc
45	number was. But then, we were 300 feet lower, we were eight degrees cooler.

1 We had a little bit of wind that's not factored in. so -- so there was some 2 additional safety margin built into this. 3 4 KELIHER: Do you remember the takeoff weight? 5 6 MR. COULTAS: No, I don't recall. 7 8 KELIHER: Do you know what the max would have been? 9 10 MR. COULTAS: Uh, no, I mean I -- I have close but I don't recall what it was. It's --11 12 KELIHER: That's fine --13 14 MR. COULTAS: Too long ago. 15 16 KELIHER: When you're doing the load calcs where are you getting your altitude and 17 temperature from at the beginning of the day? 18 19 MR. COULTAS: You're getting that from the morning briefing. When you show up at 20 the morning briefing, your forest service manager gets that information from uh, 21 air ops from the day briefing of -- hey, this is the area that we're gonna be 22 working in today. This is the elevation that they're gonna be at and then this is 23 the temperature. So air ops gives that in a morning briefing to your manager. 24 And then when you show up for your morning briefing with your manager, and 25 you're crew, then he passes that on to us. So we get that from them. 26 27 KELIHER: And where do you get your empty weight from? 28 29 MR. COULTAS: We get that from the chart C out of the uh, flight manual. 30 31 KELIHER: Um, can you, in a little bit more detail [LAUGH], if you don't remember, 32 that's fine, but describe the liftoff for the accident flight. 33 34 MR. COULTAS: Um, it wasn't any different from any of the rest. You know, it uh -- it 35 was smooth. Um, you know, Roark again wasn't -- isn't one of those pilots that 36 um, you know, just varns in all the power and takes it right up to your max torque 37 available or your max power available and then just muscles your way out of it. I 38 mean there's guys out there that fly that way but there's no need for it. the 39 aircraft, you know, it -- um, Roark is real smooth. He's a real smooth pilot. You 40 pull in, you get yourself a good steady rate of climb, an assent and I mean if you don't need to take it up to red line then don't. And -- and uh, and Roark didn't. 41 42 You know, he didn't just yarn it in and muscle the thing off the ground. It was 43 very smooth, very controlled. Um, I mean I didn't see -- there was no problems 44 with the uh, take off. At least from where I'm sitting. 45 46 KELIHER: That takeoff was the same departure, flight path as the others?

1 2 MR. COULTAS: Yes, that was the plan. 3 4 KELIHER: Okay. 5 6 MR. COULTAS: Yep, we were going the same way every time. Because it afforded the 7 best opportunity for obstacle clearance as you're heading out. 8 9 KELIHER: Do you remember any of the last words following -- I guess, "Oh fuck"? 10 11 MR. COULTAS: After that? I don't remember anything after that. 12 13 KELIHER: Okay, that's when --14 15 MR. COULTAS: That's when I knew -- in my mind when I said that and then in my 16 mind I knew then I honestly knew that we were gonna crash. 'Cause there was no 17 place -- there was no options to land. It was gonna be some form of crash, you 18 know, whatever. There wasn't an open area. The only place to land on the top of 19 that hill was back behind us where we just took off from. So, I knew in my mind 20 that we were gonna crash. I don't remember anything after that. that's my 21 problem and that's where I'm struggling here because I mean I've never gone 22 through anything like this before. Nothing -- anywhere near this traumatic. But I just don't understand how the mind can shut itself down like this. It makes 23 24 absolutely no sense to me. And it's extremely frustrating. I've always known -- I 25 mean even when I've gotten really drunk, I've always -- I've never taken myself 26 to where I don't remember. And uh, this is the only time in my life that I cannot 27 recall an event. And I just -- and it's just frustrating the living heck out of me. 28 29 KELIHER: You know a lot of times people find that it comes back later on, too. 30 31 MR. COULTAS: I'm hoping so and I'm -- I mean I'm really hoping so. 'Cause I would 32 really like to know. 33 34 KELIHER: Uh, were there any malfunctions that you can recall that would of resulted in 35 a loss of power or a reduction of power? 36 37 MR. COULTAS: No, the aircraft was running great. I mean we had two strong motors. 38 Uh, one of the motors was a plus four and the other motor I think was a plus five. 39 Uh, which is pretty significant. Um, all of our numbers, based on our load calcs 40 are all based off min spec, meaning zero engines. And when we did our load calc 41 we did not take that plus four and plus five into account. We went back to min 42 spec so that we knew there again, is an additional safety margin built in. we knew we had the power to do this and uh -- and there was no need, based on the plus 43 44 four engines, the three to five knots of wind and the altitude and temperature,

there was no reason to muscle this aircraft. You know, we had plenty of power.

And uh, for dual engine. And she would do everything and she -- everything was nice and smooth.

KELIHER: So nothing that you can remember specifically about that engine or aircraft performance?

MR. COULTAS: No, the only thing that I do remember, is when we started to transition, which is a normal -- this is a normal flight characteristic. When you trade that assent for forward airspeed you dip the nose a little bit. So you push the nose over. You don't change the power so much in the collective, you just hold that steady, you apply forward cyclic and you begin to fly forward. You push the nose over. She kind of drops, you know, five degrees or so. And you keep -- that's how you get your forward airspeed. Well, when Roark dipped the nose and we started moving forward, that's when she dipped again and she dipped a little bit harder this time and then that's when we started to settle. That's the only indication that I had at that time that there was a problem. Was that second dip because that is not characteristic of a normal departure. Nor was it characteristic you know, of Roark unless he sneezed or something like that, which he did not. Uh, you know, it -- that's the only indicator that I have, that something was wrong. Was that second deep of the nose. And then she dipped and she came back and then that's when the rotor started to decay. That's when the rotor started to bleed off and I felt it and I heard it. I came inside, I called out the 103 percent and we were continuing to descend. But that was my only indication that there was a problem.

KELIHER: Any smells that you can remember?

MR. COULTAS: No smells, no noises. You know, uh, I don't remember there was -there was no uh, uncharacteristic noises. I don't recall anything like that. Um, I
don't -- I didn't smell anything. Um, you know, the aircraft was really -- flight
controls and all that appeared to be normal through the entire event. It just that
we didn't have the power to get back out of the hole.

KELIHER: How fast do you think you were going?

MR. COULTAS: Once he nosed it over, we started creeping forward, it's hard to tell. We weren't above ETL.

KELIHER: Okay, that's what I was getting at --

MR. COULTAS: Um, we were probably, I don't know, maybe -- maybe five knots maybe. I don't know, it was just -- it was real slow. But it's hard to judge, you know, you're that big and kind of moving through the trees.

KELIHER: A fast pace?

1 MR. COULTAS: Yeah, fast, brisk walk, maybe. Maybe. 2 3 KELIHER: Um, again, some of these sound redundant but it's just --4 5 MR. COULTAS: That's okay --6 7 KELIHER: So we don't have to call you ever again. 8 9 MR. COULTAS: That's alright. 10 11 KELIHER: Can you remember all the gauges that you saw? 12 13 MR. COULTAS: Really the only gauge -- once I -- once -- I was more concentrated Zoë 14 when we took off, of not drifting into those trees to my right. That was a big 15 concern of mine. And -- and it's simple -- it can -- where a guy takes off and he's 16 concentrating on the trees on his side and he doesn't want to get too close to 'em 17 so he inadvertently starts to drift away from them, you know, and I didn't want 18 that to happen. So, I was really concentrating on those trees out my right side. 19 Uh, once I had the throttle set, when he picks it up off the ground, powers good. I 20 insure that the throttles were matched. And the torques were matched up. And 21 then um, once all that's good then I take my hands off the throttles and uh, you 22 know, clear on the outside of the helicopter. The only real gauge that I really 23 went to when I sensed that the rotor was bleeding off was the rotor RPM. That's 24 the gauge I went to first. And then it was the 103. It should have been up at the 25 106, 105 range. It was down at that 103. And uh, and I cleared. I came back 26 inside. I could sense the -- it was spooling down even more. And then I saw 100 27 percent. Um, and again, that was after the dip, the dip of the nose when we were 28 starting to settle into the descending below the uh -- the trees now. That we had 29 just had gone above. 30 31 KELIHER: Are you following along? 32 33 MR. COULTAS: No, my hands are not on the controls. 34 35 KELIHER: Okay, uh, did you use the emergency manual throttles? 36 37 MR. COULTAS: Um, not that I recall. 38 39 KELIHER: Okay. 40 41 MR. COULTAS: I -- I don't -- after -- yeah, after I said, you know, my thing and -- I 42 don't remember anything. 43 44 KELIHER: Just so we can get it out there for the record, did you remember what NG 45 was?

1 MR. COULTAS: No. 2 3 KELIHER: Okay, and did you ever see the engines reaching their topping limit? 4 5 MR. COULTAS: No. 6 7 KELIHER: And you didn't observe the engine torque? 8 9 MR. COULTAS: No, I mean -- no, only there at the hover. And when I called out power, it was good. And uh, you know, Roark has a torque gauge right out his 10 11 bubble. So he's looking at torque also. 12 13 KELIHER: Uh-mm. 14 15 MR. COULTAS: Uh, but no, I don't specifically remember looking at it and uh -- you 16 know --17 18 KELIHER: Would you be communicating that back and forth to each other? If Roark 19 saw that, would he tell you? 20 21 MR. COULTAS: Torque? 22 23 KELIHER: Yeah. 24 25 MR. COULTAS: Um, yea -- he may. If I saw it, I defin -- I do communicate it. You 26 know, 'cause part of my responsibility is to make sure that we don't over torque 27 the helicopter. But you can tell on a takeoff -- if a guy just yarns in the power, 28 then you can suspect that you're right up in there and that's when you are coming 29 to the gauge. It really depends on the technique of the guy flying of what systems 30 that you monitor and you know what gauges you're specifically looking at. 31 Because everything happens so fast. This was a very smooth, very controlled um, 32 you know, deliberate takeoff. Um, that didn't require you to start bouncing 33 around looking at gauges going whoa, we're over torquing here. It wasn't like 34 that. um, you know I don't really recall coming back in and looking at torque and 35 making absolutely sure that he was over -- wasn't over torquing so that I had to 36 push power back out of it. Unlike we do when we're on the water. When we're 37 sucking water, we'll calling out torque, 65, 70, 75, you're at 80 percent, stop 38 pumping. 80 percent stop pumping, he's not stopped pumping, you shut the 39 pumper off or, you know or when you're coming out of the hole, and you got 94 40 percent and he's pulled it up to 97 percent or say you get 103 percent which is our limit and he pulls it up to 105 percent. It's the responsibility of the guy in the 41 42 right seat to push that [unintelligible] back down to get you down below that 130

percent. And then if you start to droop, then you either stop -- and you emergency

jettison some of the water and he pickles some of it off on his side.

KELIHER: Got it.

43 44

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MR. COULTAS: But again, it's all -- that technique is a little bit different in that, you just know when you guy -- we had a guy flies -- I mean there's guys out there that fly that way and that you really have to monitor that. But, Roark is not one of those guys. I mean he was a very smooth, very controlled um, you know, very clean takeoff. Uh, which makes a guys life in the right seat a little bit easier. Where you don't have to bounce around so much. Um, where I could concentrate on the trees on the right. And uh, and then make sure that the torques were matched up. But uh, you know, I don't -- I don't specifically recall.

KELIHER: Will you draw your flight path, that you can recall?

MRS. COULTAS: This aughta be good.

15 KELIHER: [LAUGH]

MR. COULTAS: Let's see. There was a row of trees here. There's a row of trees over on this side and it kind of went like this. And it kind of went like that. And there was these trees -- the ones that I was concerned with were over here. This about in here was -- this went out like this. This is about where they wanted us to land. That was where the [unintelligible] but it was all the dust and all that and we actually moved up over into here it seems like. So this would be one, this was two. The plan was to -- and these trees are, you know, they're pretty tall. I figure uh -- I figure they were approximately 100 feet -- 80 to 100 feet, something like that. These here were maybe a little bit smaller, 75 to 85 feet. Uh, and then so the departure was to come up and then to kind of go like this, out that direction, like that. And then, uh, the terrain started to drop off down here. But there were still big trees down in there but again the terrain started to roll away from you. So it was kind of more like a -- like that I would say.

KELIHER: And um, flying this --

MR. COULTAS: Does that make sense?

KELIHER: Can you show me where your nose is?

MR. COULTAS: Yeah, nose is --

39 KELIHER: With the pen like if that was the helicopter -- okay, yep, yeah --

MR. COULTAS: So that's how we landed and then when we picked up, you started moving forward and then we kind of went to the right.

KELIHER: Okay, so you didn't --

46 MR. COULTAS: No, you don't pick up and do a pedal turn any like that --

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     KELIHER: No, I mean uh, would you skid over like that?
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     MR. COULTAS: No, no, no, no.
 5
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     KELIHER: Okay.
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 8
     MR. COULTAS: No, um, it was -- it's all one -- one continuous movement.
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10
     KELIHER: And then will you mark with an X of where you did the first transition?
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12
     MR. COULTAS: Um, it's right --
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14
     KELIHER: To forward flight --
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16
     MR. COULTAS: It's right in here.
17
18
     KELIHER: Okay.
19
20
     MR. COULTAS: Right in here.
21
22
     KELIHER: And then where was -- do you know where the first contact was, when you
23
             touched the trees?
24
25
     MR. COULTAS: I'm thinking it was out over in here somewhere. Out in this area.
26
             'Cause we were creeping forward and uh, and it was after the second nose dip,
27
            called the 103, now we're still descending down into the trees. And then uh, and
28
            then we started -- I saw the debris and -- and I think -- I thought the tree was out
29
            in here some place that we were hitting. So to me it would -- you know, it was out
30
            in this area here.
31
32
     KELIHER: Okay, where's north on that?
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     MR. COULTAS: Where would be north. North would be kind of back over like -- that,
35
            I believe.
36
37
     KELIHER: And where are the winds coming from?
38
39
     MR. COULTAS: The winds were about like -- that. Something like that.
40
41
     KELIHER: Perfect. Um, our survival factors person wanted me to ask you a whole
42
             bunch of questions about evacuation of the helicopter. But I think this might be
43
            pretty easy--
44
45
     MR. COULTAS: Okay.
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KELIHER: Because it sounds like you didn't remember much. Do you remember any obstacles to the evacuation? MR. COULTAS: I don't know how I got out of the helicopter. I don't remember anything inside the helicopter. I don't remember the crash. KELIHER: When you uh, tighten your seatbelts, how do you normally do it? MR. COULTAS: Flying in the right seat, um, I did not have my shoulder harness on. Uh, and the reason for that is, is because to get out that window and to clear the aircraft, you can't. It prevents you from getting out there. So, I did not have my shoulder harnesses on. Some guys do um, but you can't -- you can't really clear the helicopter. So, I did not have my shoulder harnesses on. My lap belt, um, I had it on but it's not extremely tight 'cause I gotta be able to get up on my right hip. Um, but uh -- it's not, you know, dangly loose either. It's kind of that kind of happy medium. When I go onto my right hip, I can feel the seatbelt kind of tighten down on my left hip. Um, that's about how tight I put mine. KELIHER: Did you see any marks after the accident which would indicate that the seatbelt was -- like a bruise or --MR. COULTAS: Bruising -- um, I don't recall --MRS. COULTAS: Well, actually she mentions that there was, on this side, a bruise --KELIHER: Round --MRS. COULTAS: But we didn't know why. MR. COULTAS: Yeah, I don't -- I don't remember any of this. MRS. COULTAS: The bruise was healed by the time he was awake. KELIHER: Can you show me where --MRS. COULTAS: It was -- it was right there. KELIHER: And it was a round circle --MR. COULTAS: Was it on my right side or my left side? MRS. COULTAS: It was on your right side. MR. COULTAS: Over in here? MRS. COULTAS: Uh-mm.

1 2 MR. COULTAS: Mmm. 3 4 KELIHER: Do you remember if the seat stayed in place? 5 6 MR. COULTAS: I don't remember. 7 8 KELIHER: And you don't remember anything about passengers or hearing anything. 9 10 MALE VOICE [OFF MIKE]: It's one --11 12 MALE VOICE [OFF MIKE]: One, okay, we're good to go. 13 14 KELIHER: Um --15 16 MR. COULTAS: I wish I did, I mean I really do. 17 18 KELIHER: Who is normally responsible for the preflight safety briefing? 19 20 MR. COULTAS: Pilot in command. Pilot in command is responsible to insure that the 21 briefing is completed. 22 23 KELIHER: Okay but the helitac members do it--24 25 MR. COULTAS: Uh, he can designate that to a represent of flight crew or a 26 representative or designated -- and in this case here, we were -- before we ever 27 took the mission, before we ever parted the helibase, we had the twelve 28 individuals and Roark had briefed all of them and uh, gave them a safety briefing 29 and then um, it was designated then who was gonna be briefing them up on top of 30 the hill. I don't recall who that was. Um, and then -- then Roark gave them the 31 authority to brief those individuals up on -- at helispot 44. 32 33 KELIHER: How do you feel about that process? 34 35 MR. COULTAS: Um, as long as they're a competent crew member, um, you know, I 36 don't -- I don't have a problem with that. Um, you know, obviously you want 37 'em to uh, to cover everything. Um, you know, not forgetting anything. I do 38 think that um, when that happens that they should -- there should be a checklist. 39 That individual should -- if he's going to give a designation, because he doesn't 40 do it all the time, it should be done by a checklist. And whether or not that was 41 done up there on top of the hill or not, I don't know. I do know that the forest 42 service has a crew uh, passenger briefing checklist. I carry one with me. Uh, or I 43 did. Now it's burnt up but um, you know, I'm aware of that and I know that those 44 individuals carry those little spiral um -- they're kind of like a -- almost like a 45 cheat sheet type of a deal. And um, so I would suspect that they briefed it off of that. 'Cause I know it exists and, you know, shoot, I've used it. 46

1 2 KELIHER: Is there a fire extinguisher on board? 3 4 MR. COULTAS: There's two, one behind the copilots seat and one in the back of the 5 helicopter. 6 7 KELIHER: So, would you have been able to reach it? 8 9 MR. COULTAS: Um, yeah, I mean I can -- from the seat I can reach right around and 10 it's right there. 11 12 KELIHER: Okay --13 14 MR. COULTAS: And just pop that -- the release on it and grab it. But -- I don't recall 15 ever doing that. 16 17 KELIHER: Do you think anything could have been done differently in the takeoff? 18 19 MR. COULTAS: I -- no, I mean they were all the same. The third -- the third takeoff, 20 the incident takeoff was no different than the first takeoff, which was no different 21 than the second takeoff. They were all the same. 22 23 KELIHER: Is it common in helispots not to have an out if you loose an engine or if 24 anything happens? 25 26 MR. COULTAS: Um, it's [unintelligible] dictated. You know they try -- well, you 27 know they try to uh, make 'em, you know as safe as they can. Uh, I can't say that 28 we didn't have an out. Because we kind of -- the way the terrain kind of sloped 29 away and the trees, I think we did have an out, it's just that, I think whatever 30 happened, happened at the worst time it could happen for us. Because there's a 31 chart in the flight manual and it's called the height velocity chart. And within 32 that, it talks about air speeds and altitudes. Well -- and there's a void zone within 33 that chart. Um, you're in it every time you fly, take off and landing. No matter 34 what you do, you're in it, every single time you go fly. I think what happened to 35 us, happened at the worst time it could happen. And it happened while we had no 36 air speed and while we were, you know, a little over a 100 feet above the ground, 37 which is the avoid zone of that chart. 38 39 KELIHER: I know we're -- now getting in a time crunch. Where did you do most of 40 your flight training? 41 42 MR. COULTAS: Army, military training. I had just gotten out of the army, a year ago, 43 July of uh, 07' is that right? 44 45 MRS. COULTAS: I can't remember.

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1
     MR. COULTAS: July of 07'.
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 3
     MALE VOICE: Did you retire?
 4
 5
     MR. COULTAS: No, I didn't retire. I just didn't want to deploy again. [LAUGH]
 6
 7
     MRS. COULTAS: Which, his unit is there now, again.
 8
9
     KELIHER: How much time do you have in?
10
11
     MR. COULTAS: 15 years and four months.
12
13
     MALE VOICE: Wow.
14
15
     MALE VOICE: Wow.
16
17
     KELIHER: Uh, how much time just approximately, do you have in helicopters?
18
19
     MR. COULTAS: Um, just under 3,000 hours.
20
21
     KELIHER: Versus fixed wing?
22
23
     MR. COULTAS: I have no fixed wing time, 20 hours or something, 25 hours.
24
25
     KELIHER: In a Mooney like that? [LAUGH]
26
27
     MR. COULTAS: No.
28
29
     KELIHER: Uh, what's most of your time on?
30
31
     MR. COULTAS: Um, it breaks it up 61 Black Hawks, I've got some Huey time. I've
32
            got some 206 time. Um --
33
34
     MRS. COULTAS: 58 --
35
36
     MR. COULTAS: 58 is a 206. Uh, see what else do I have? I have some A109 time.
37
            Um, not very much. I've got uh -- I've flown a Heath 500, you know just kind of
38
            playing around type of thing. I've flown an A-Star, taken a check ride in an A-
39
            Star, didn't even know how to start it. Guy had to help me out. Um, you know,
40
            stuff like that. So I mean I've kind of played around on a bunch of little
41
            helicopters and -- but uh --
42
43
     KELIHER: About how many on the 61?
44
45
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MR. COULTAS: Uh, what do I have on the 61? 1,000 -- 1,200 somewhere in there.

1 2	KELIHER: Do you like flying the 61?
3 4 5	MR. COULTAS: Oh, it's a great machine. I can't wait to fly it again, you know, and I will fly it again, when this is all over with and you know, hopefully I can get my left hand back and you know, I'll be able it's a great machine. Um
6 7	KELIHER: Did you fly it before coming to Carson?
8	REEDITER. Did you my it before coming to curson:
9	MR. COULTAS: No, no I had never flown a 61 before till I came to Carson and and
10	uh, it's real reliable. I kind of relate it back to a Huey. You know, it's simple.
11	It's not complicated. It's a it's very loyal. You know, it always performs and
12	uh, it's just a good machine. It really is a good machine.
13	
14	KELIHER: Your uh, all of that was military before going to Carson?
15 16	MR. COULTAS: Yeah.
17	WK. COULTAS. Teall.
18	KELIHER: What kind of stuff were you doing?
19	
20	MR. COULTAS: I was uh let's see, I've I was a scout pilot in 101st. Uh, single
21	pilot stuff. Uh, in apache battalion. Uh, I was just I flew Black Hawk at the
22	101st, just you know, flying just ash and trash.
23	
24	KELIHER: Yeah, what kind of conditions?
25	
26	MR. COULTAS: Um, all conditions, night time, goggles, weather, uh, I-Far uh, and
27	then uh, and then when I was in Oregon Guard I was a Medivac pilot, flying
28	Black Hawks.
29 30	MRS. COULTAS: Didn't you do people repelling and
31	WKS. COOLTAS. Didn't you do people repennig and
32	MR. COULTAS: Yeah, but I mean that's that's all part of that hash and trash deal.
33	I've done repel, I've done lots of hoist and you know, stuff like that.
34	- · · · · · · · · · · · · · · · · · · ·
35	KELIHER: Why did you decide you wanted to work for Carson?
36	
37	MR. COULTAS: Just wanted to
38	
39	MRS. COULTAS: Close to home.
40	
41	MR. COULTAS: Yeah, um, I don't know. You know, my wife and I we own a we
42	own a Radio Shack store and little video store. We bought that in uh, 95', I got
43	out of the service in 95'. I had blown a leg out, had a knee reconstruction, I really
44 45	never thought I'd fly again. So, we did the store and then, you know, I don't know, I just started getting the inkling again to go fly. And and uh, I knew a
46	guy that was flying for Carson and he made some phone calls and got an
TU	gay that was right for earson and he made some phone cans and got an

1 interview. I don't know, it's just -- one of those things. Um, I fly -- I fly because 2 I like to fly. Not -- I mean -- you know, not because we need the money or any of 3 that kind of thing. It's what I truly love to do. Um, it's where I get my most 4 personal satisfaction. You know, that whole thing at the end of the day, you 5 know, you look back on it and you feel good about yourself or do you not feel 6 good about yourself? When I fly all day and I look back, I -- that's when I feel 7 the best about myself. 8 9 KELIHER: What was the hiring process like? You said you went through an interview 10 11 12 MR. COULTAS: Oh, yeah, I went through an interview. Uh, um, you know, standard, 13 standard interview --14 15 MRS. COULTAS: Give up your first born --16 17 MR. COULTAS: And then uh -- and then Carson put me through a week -- a week uh, 18 training course where went through -- it was a classroom environment. And uh, 19 went through all the systems, all the emergency procedures. Uh, director of 20 maintenance was involved in the class. And then at the end of the class I got to 21 fly the helicopter and you know, and then, um, then they determined then if they 22 were gonna hire me or not. And uh, so at the end of the class they offered to hire 23 me. And then my first uh, my first good solid week was with the chief pilot. Uh, 24 we went out to Pennsylvania and picked up a helicopter and just flew across 25 country all the way back across the country. And uh, you know, then he quizzed 26 me and oralled me and you know, I think the interview piece was still going on. 27 But uh, you know, I mean it was -- I thought it was good. 28 29 KELIHER: What was your start date, do you remember? 30 31 MR. COULTAS: Oh, man, um, my actual first work day was Father's Day of 2002. 32 Right? 33 34 MRS. COULTAS: Beats me [LAUGH]. 35 36 MR. COULTAS: Remember I left on Father's Day. 37 38 MRS. COULTAS: You're always gone on every holiday, so I don't even --39 40 MR. COULTAS: No, but Father's Day, I just remember Father's Day because when we 41 got out to Pennsylvania, Steve's dad showed up at the hanger and it was Father's 42 Day. So --43 44 KELIHER: Are you seasonal or full time? 45 46 MR. COULTAS: I'm full time.

1 2

KELIHER: Do you have any other employment, I mean the video store, but --

3

4 MR. COULTAS: No --

5

6 MRS. COULTAS: No, we don't allow him in there.

7 8

MR. COULTAS: Yeah, they don't let me go to the store.

9

10 KELIHER: Do you do any other flying?

11

MR. COULTAS: No.

12 13 14

KELIHER: And how often do you have training at Carson?

15 16

17

18

19

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MR. COULTAS: Uh, we do annual training. Where they uh, bring us in for a week and they go through -- oh, you know, company procedures, uh, they go through things that happened in the previous year, goods and bads. Uh, any paperwork changes and then we go through systems. Uh, air space, do some aerodynamics. Uh, emergency procedures and then the end of the uh -- at the end you take a check ride. Where he goes out, takes you, pulls engines back on you, shuts off hydraulic systems on ya. Uh, sticks collective, sticks a pedal and you might have, out of all those maneuvers -- he might give you three, so, you know, three different approaches. And three different landings, max performance, all that kind of stuff.

242526

KELIHER: How are you training for the forest service operations?

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MR. COULTAS: Um, well as far as like dropping water and things like that? It's changed now. But for me, um, it wasn't really a training program in place. Um, so whenever I would fly the snorkel or fly the tank, um, it would -- a lot of times it would be on the companies dime until I was able to build up the time and the experience or the training to where I could take a forest service check ride. And I took a forest service check ride by Jim Ramich uh, back in -- I wanna think it was 05' is when Jim gave me my check ride. And uh, and it was actually on a fire and it was initial attack type of thing. And uh -- so then that's what allowed me -- I'd already been type rided in the helicopter. Carson had typed me like the year before. And then -- and then I would just get some tank time whenever I possibly could to get the experience and uh, you know, the procedures and then the forest service came and gave me a check ride. Which then allowed me to fly the uh, the tank on a fire, you know, as situation dictated. Obviously I didn't want to go out there under the most extreme circumstances. And I always flew with a command pilot. Never flew with a copilot. And uh, it was a very monitored program. Um, and I preferred it that way to be honest with you. 'Cause I didn't want to go out there and you know, get turned loose in this thing. I'd only been flying the tank for you know, 15 hours or something, you know. And uh, go get turned loose on

1	some big structure fire that high stress. I mean the company wouldn't do that to
2	us. And uh
3	
4	KELIHER: You said you were sleeping at the hotel that was close by
5	
6	MR. COULTAS: True, yeah, um
7	
8	KELIHER: How were the accom
9	
10	MR. COULTAS: It was in Lewiston. It was fine, I mean it's you know, a little small
11	backwoods hotel, but it was clean.
12	
13	KELIHER: About how many hours of sleep did you get for the last 72 hours
14	The second now many notice of stoop and you gove for the most of another
15	MR. COULTAS: Oh, I'm getting full nights sleep. I'm going back in the room we're
16	back down the hill by I was calling you what, about 9:15, 9:30? In the
17	evenings, I figured I'd come back we had to go stand in a specific spot to get
18	cell phone service. So, I would call back to and if you moved you'd loose it.
	•
19	So we couldn't talk for very long. So I'd just call and say, "Hey, we're down the
20	hill, everything's fine"
21	MDC COLUTAC (C. 1 2, 1, 2)
22	MRS. COULTAS: 'Cause see he can't sit still
23	ND CONTINUE A LITTURE AND A LI
24	MR. COULTAS: And uh, then I'd go back in my room. Uh, take a shower and then uh,
25	shoot I figure I was in bed by ten. You know, laying down, flipping through the
26	news and then, you know, up at six. So I mean I was getting a good solid, eight
27	hours of sleep a day.
28	
29	KELIHER: And you had breakfast, lunch and dinner?
30	
31	MR. COULTAS: Yeah, I was eating all the meals. And uh, you know, lots of water.
32	'Cause it was pretty hot up there. And I mean they they bring us cases and
33	cases of water and what we had all the ice and everything. So
34	
35	KELIHER: How's your health?
36	•
37	MR. COULTAS: I'm good except for now.
38	
39	KELIHER: Were you taking any medication?
40	The state of the s
41	MR. COULTAS: No.
42	Int. COCETIO. 110.
43	KELIHER: Do you use drug or alcohol?
44	INDESTITE TO you use drug of dicollor:

1	MR. COULTAS: Uh, no drugs. Um, I'm a you know, moderate well, I wouldn't
2	say moderate. Um, I drink only beer. I don't drink any liquor or anything like
3	that.
4	
5	MRS. COULTAS: Working around the house or something.
6	
7	MR. COULTAS: Yeah, you know and and uh, I mean we might do drink a beer or
8	something at the end of the day. But even on this tour here, I mean I think I could
9	probably count all the beers that I drank on one hand. I mean
10	
11	KELIHER: Have you ever had a history of drug or alcohol abuse?
12	
13	MR. COULTAS: No.
14	
15	KELIHER: Have you ever had any arrests for drug or alcohol?
16	MD COLUMNAG NI
17	MR. COULTAS: No.
18	WEI HIED. Any amosts period for anything?
19 20	KELIHER: Any arrests period for anything?
21	MR. COULTAS: No.
22	WK. COULTAS. NO.
23	KELIHER: Um, traffic tickets?
24	KLEITIER. OIII, traffic tierets:
25	MR. COULTAS: I had
26	MR. COCETAG. Thad
27	KELIHER: Recently?
28	
29	MR. COULTAS: No, not recently.
30	
31	KELIHER: Okay, I don't need to know the full history
32	
33	MR. COULTAS: Yeah, I had speeding like back in like 2000. and then I the only
34	other ticket I had in my life was I bought a brand new truck, drove it off the lot
35	and the cop pulled me over and I was 18-years-old and gave me a ticket for
36	improper left turn. So I I've only had two tickets in my life. Yeah
37	
38	KELIHER: All the luck. What kind of flying were you doing the two days prior to the
39	accident?
40	
41	MR. COULTAS: I don't think we flew at all.
42	
43	KELIHER: Yeah. Was that a little boring?
44	MD COLUMNS IN A CALL DAY
45	MR. COULTAS: Uh, it gets that way. But you know, you you hanging out with a
46	bunch of guys and everybody telling jokes and you know we got radio going

1	and reading the newspaper and I mean studying the flight manuals. You just
2	get used to it. Kind of get into a routine.
3	
4	KELIHER: And you touched on this before and we don't need a whole classification,
5	but 766 you were flying for how long before?
6	
7	MR. COULTAS: Um, I was assigned to this machine all summer and I think I had done
8	two full tours. And then this partial tour, does that sound about right?
9	<i>β</i>
10	MALE VOICE: Twelve days?
11	
12	MR. COULTAS: Yeah, twelve days and then twelve days off, does that sound about
13	right Sean?
14	iight beuii.
15	MORETZ: Yeah
16	MORETZ. Team
17	MR. COULTAS: Do you recall?
18	Wirk. COOLITIS. Do you recair:
19	KELIHER: And how was it flying?
20	RELITIER. And now was it flying:
21	MR. COULTAS: Flied great. In fact uh, we commented that she was actually one of the
22	smoothest machines in the fleet. Very, very smooth, very balanced. Um, just I
23	
	mean you know, some machines it's kind of like a car or remember when you
24	were a little kid and a bicycle. You know you could ride your bike but if you got
25	off your bike and got on your friends bike it just road different, felt different.
26	Well it's the same in you know, some helicopters just kind of fly different or
27	whatever. But this one here, 766, boy, I mean she's just real smooth, nice
28	IZELIUED A '1 1 4'40
29	KELIHER: Any quirks about it?
30	AND COLUMN C. C. C. C.
31	MR. COULTAS: Say again?
32	
33	KELIHER: Any quirks?
34	
35	MR. COULTAS: No, nope, none that I noticed.
36	
37	KELIHER: Do you know the last two days, do you know if Roark pretty much had the
38	same schedule as far as sleep and food and
39	
40	MR. COULTAS: Yeah yeah, we stayed together. Um, in fact we were just a couple
41	of doors down at the hotel. So uh, yeah, I would say his schedule was pretty
42	much the same as mine. And food, we ate all the meals together.
43	
44	KELIHER: Um, alright. Anything you can comment on about Roark, not to obviously
45	brutalize or condemn him or anything, but do you think he was pretty quick as far
46	as reactionary, pilot wise

MR. COULTAS: I think -- I think once it dipped and uh -- and then Roark -- he said something and I don't remember, I can't really recall, you know. But uh, he knew then that something that we were settling in and I called out -- or I called out the 100 -- uh, we started tapping the tree. And then uh, um, Roark knew at that time that we were -- we were gonna crash just like I did. Uh, there was no good options. Um, Roark didn't stop flying the helicopter. Roark continued to fly the helicopter to the very end. Now I don't remember the -- the impact of the ground, I cannot recall. The noise, how hard we hit. Uh, but I do know that we didn't flip over on our head. Which -- and I do know that it was pretty freaken steep in there. And uh, and I accredit the four of us that made it to the technique that Roark used to the very end. Uh, maybe sacrificing himself for us. You know, I'll never know that. But uh, uh, Roark didn't quit. He continued to fly that helicopter and he -- and he continued to be smooth clear to the very need. Um, the aircraft never got real violently out of control, you know. When we were tapping the tree, she did a little bit of fore and aft, but the aircraft never got violently out of control. It was -- she was flown clear to the very end. And uh --

KELIHER: Any safety suggestions that you could think as a result of the accident?

MR. COULTAS: You know I -- I've been -- kind of been toying around with that in my mind. And that -- you know, there's gotta be something positive that comes out of this. There has to be. I'm not a pessimistic guy. Uh, you know and I'm hoping through all of this, more than anybody I think right now, uh, and searching for that. But right now, I mean I still have -- I have a big blank, you know a big void that -- of time that I can't account for. Uh, mainly from the impact. You know there's that little bit of time there -- I don't know right now. I just don't know. I'm hoping that at some point I can find and figure out what that is. But I don't know right now.

KELIHER: Jim?

33 STRUHSAKER: Yes.

35 KELIHER: You're up.

STRUHSAKER: I covered most of 'em. Um, you mentioned that you're rotations were 12 day cycle?

MR. COULTAS: Yes.

42 STRUHSAKER: Uh, and how many days had you been on station in this cycle?

MR. COULTAS: I think I was only on for four or five days.

MRS. COULTAS: I think four --

1	
2	MR. COULTAS: Four days I think Jim.
3	
4	STRUHSAKER: Okay, thank you and I missed that did you say the two prior days
5	that you actually did not fly?
6 7	MR. COULTAS: I don't believe we did. I think we were down both days.
8	WR. COOLTAS. I don't believe we did. I tillik we were down both days.
9	STRUHSAKER: Okay, and then um, were you dedicated to this shift?
10	2 110 122 122 10 Citaly, what their only we are got are all the same.
11	MR. COULTAS: Yes.
12	
13	STRUHSAKER: So even though you would um, go home for 12 days and come back,
14	you'd have the same shift?
15	
16	MR. COULTAS: Correct, I knew I when I left at the end of that 12 days, I knew when
17	I came back in 12 days later that I would be uh, coming back to this aircraft.
18	
19	STRUHSAKER: And were mechanics, crew member, uh, including the fuel truck are
20	those dedicated to the shift?
21	MD COLUTAGE Verberred for Level Liver and Level Liver and Liver an
22	MR. COULTAS: Yes, however the fuel truck driver was a uh he was a temporary fill
23	in.
2425	STRUHSAKER: But the truck itself was dedicated?
26	STROTISARER. But the truck itself was dedicated:
27	MR. COULTAS: The truck itself was dedicated to this machine, yes.
28	The truck light was dedicated to this intermite, yes.
29	STRUHSAKER: So it would follow you wherever you went?
30	
31	MR. COULTAS: Correct.
32	
33	STRUHSAKER: Would it refuel other shifts or just yours?
34	
35	MR. COULTAS: It would if it was a sister ship or you know, another company ship
36	needed fuel. But that you know, wasn't really the general practice.
37	
38	STRUHSAKER: Alright.
39	MD COLUMNAC IN A LANGE
40	MR. COULTAS: It's not uncommon but I don't remember our this truck here fueling
41	anybody else
42 43	STDI HS A VED. Okov
43 44	STRUHSAKER: Okay
45	MR. COULTAS: Um, if that's what you're asking
46	The cooling of the sound sound working

1 2 3 4	STRUHSAKER: Now, there was uh, a statement by one of the mechanics that during your refueling that he noted what he thought was an usual amount of ash either on the wind stream on the intake uh, caulings and on the blade roots, does that ring a bell?
5 6 7 8	MR. COULTAS: No, it doesn't Jim. I don't I didn't think that the uh the ash was was uh, that bad up there. You know, there I mean there was fire down the hill. And when we head down to uh, from 44 down to 36, we had to uh, kind of
9 10	we couldn't go direct line from 44 to 36 or we'd flown right over the top of the fire. So we had to uh, skirt the edges of it, going down down the hill and back
11 12	up the hill. But I I wouldn't say it was any was abnormal. You know, it was
13 14 15	STRUHSAKER: So you don't recall a mechanic uh, or one of your personnel getting up to wipe the blades down or anything of that nature?
16 17	MR. COULTAS: No, no, Jim, I don't recall any of that.
18 19 20	STRUHSAKER: Okay, and um, did I understand you to say that you actually started with Carson in 2002?
21 22	MR. COULTAS: Yes sir.
23 24 25	STRUHSAKER: So then you'd flown each fire season?
26 27 28	MR. COULTAS: Uh, all but one. I was uh, recalled back for the war in uh, 2003. So I was actually uh I left for 15 months.
29 30	STRUHSAKER: Alright. So you are a seasonal or do are you 12 months?
31 32	MR. COULTAS: I'm a 12 month employee.
33 34 35	STRUHSAKER: Okay. Uh, were you when you first started on the 61 did you fly the Korski blades?
36 37	MR. COULTAS: Yes, the old metal blades.
38 39	STRUHSAKER: And and at what point did you transition to the uh, Carson blades?
40 41 42 43	MR. COULTAS: Uh, when I returned back from my deployment in 2004. Let's see. I believe in 04' we were still flying the metal blade and then in 05' we started flying the Carson composite blades.
43 44 45 46	STRUHSAKER: And and your sense as an experienced pilot and aviator what do you what's the difference?

MR. COULTAS: Oh, it's bolt on horsepower, Jim. It's uh -- it's made all the difference in the world. Um, in that -- at the exact same power setting, if you were sitting there um, and it was taking you uh, you know, it -- if you -- if you were sitting there hovering at 85 or 90 percent and you're holding a load, uh, with the metal blades, you could uh -- you could at that exact same power setting with the composite blades, you can lift 2,000 pounds more. And they're not kidding. It's a for real deal.

STRUHSAKER: Interesting --

MR. COULTAS: Yeah, so, uh, what it did for us, I mean it just gave me a big smile because you know, we didn't change -- or they didn't change the limitations or the payload capability of the helicopter at all. They left them all the same. So really what it did was, your engines weren't working as hard. And there was less uh, forces on the control, you know on all the flight controls. Um, it -- which -- you know, from a pilots point of view, uh, if you're not working your engines as hard, you know, you're gonna get longer --

STRUHSAKER: Right, it's in your favor --

MR. COULTAS: Yeah, I mean it's -- just -- it was just a -- I love 'em and then the -- these blades --

STRUHSAKER: When you did experience droop, um, do you -- have any recollection uh, of any increased or different deterioration in lift?

MR. COULTAS: Um, yeah, you do actually. The blades were actually designed at 103 percent RPM. Um, that's what the engineers designed 'em at. Uh, the rotor system we run it at 106. Uh, so, you know we get a significant amount of lift. You can hear it when the rotor droops. Um, but as she starts to droop below that 103, uh, she really starts to -- it's really becomes apparent --

STRUHSAKER: Yeah, it falls off quicker?

MR. COULTAS: It falls off quicker, yeah.

STRUHSAKER: Alright, um, that's interesting. That was certainly one of the questions that we're looking at and uh -- 'cause we've heard how spiffy the blades are. But I know aerodynamically when you gain something you loose something and the -- do you think there are any other things that you might loose with these -- these really nice blades?

MR. COULTAS: Um, I don't -- I'm not sure I understand the question. Um --

STRUHSAKER: Well, like you said your -- your fall off of your lift is a little bit more dramatic. Uh, you know there's a --

MR. COULTAS: Well it appears to me that it was. I mean, I don't know. You know, it -- it all happened so quick. Um, they uh -- well you're -- and you're right, you know. When ever you gain something, obviously you gotta look -- you're gonna loose something some place else. Our fear has been that, okay, where's the next crack gonna be. You know, if I'm getting such good performance out of these blades and everything is great, there's gotta be somewhere within that fuselage or where that tail boom connects to the fuselage, you know, something. Uh, where's the next crack gonna be. And that's kind of what I've always asked myself and I -

STRUHSAKER: Well, if your harmonics are down and your power is less that should certainly help you in that regard.

MR. COULTAS: Sure, you bet.

STRUHSAKER: Alright, uh, I wanna thank you. Uh, the only comment that I've got -- a couple of comments, real quick -- short -- is that, if you'd be so kind as -- maybe with your wife Chris or something if -- if you'd be willing to maybe sort of keep something like a diary or your thoughts over a period of time and -- because you're going to go through quite a healing process not just physically, but psychologically. And I think, one the diary might help you personally but -- but in the diary process -- and you can do this different ways. You know, you could even do it in a tape recorder, whatever. But uh, some details might come up and if you would, you can contact, you know Sean or Zoë or myself or -- you know, whom ever and share 'em. But, I know from my training and experience that hopefully it'll um, you know, by looking right at it over time, uh, it actually facilitates the process of your healing emotionally, so -- I just support you on that and Chris I want to certainly thank you and -- I mean -- I know he's your husband but it's still quite a trial and task. And I'm just giving you accolades for your -- what you've done.

MRS. COULTAS: Thank you.

KELIHER: Chuck, do you have any questions?

TAYLOR: Just, you know I've gotta ask one last time. Bill, when you're sitting up there and you're rotating, you're leaving the hover and you're transitioning to forward flying and if you shut your eyes and you're thinking back or you're leaning out the door there, I mean your leaning out the bubble, and you feel that nose deep the second time, no swerve, you didn't hear anything --

MR. COULTAS: No --

TAYLOR: And I'm not talking something huge, just a little bit? No engine noise, difference, no nothing --

1 2 MR. COULTAS: I didn't notice anything Chuck. I -- I uh --3 4 TAYLOR: Okay --5 6 MR. COULTAS: I don't remember a big yaw --7 8 TAYLOR: No, no --9 10 MR. COULTAS: You know anything like that. Uh I don't remember a big loud noise. 11 Anything like that. Uh, I just -- you know how you can just -- if you fly a long 12 time, especially if you fly in a specific machine, you just kind of know. You kind 13 of develop, you know, you kind of know what it's gonna do or what -- what it's 14 suppose to feel like and that -- to me, there's anything through this whole process, 15 that is the only thing that I can really point my finger at and say, if there was 16 something that's abnormal that was it. Through this whole process. Because she 17 shouldn't of dipped. She shouldn't of -- not like that. And -- 'cause she dipped 18 pretty good and then -- and I know Roark reacted to it and he pulled the nose right 19 back up and then that's when we started drooping and uh -- so you know, uh, but I 20 don't remember anything else. I don't remember a big yaw or a noise or nothing. 21 22 TAYLOR: Okay. 23 24 KELIHER: Were you pretty stressed out about uh, dark coming, pumpkin time coming? 25 And you had three more loads? 26 27 MR. COULTAS: No, no we knew we were gonna be okay. We -- I mean we weren't 28 stressed about it. We knew that we had to meet that time. Um, and it wasn't like 29 a -- oh, my God, a sense of urgency like, oh, my God we gotta make this. It 30 wasn't like that. Um, we knew we had time to do it and -- but it was gonna be, 31 you know, probably within five or ten minutes. And uh --32 33 MRS. COULTAS: No lollygagging. 34 35 MR. COULTAS: Yeah, but we knew we couldn't be dinking around either. We had to 36 get it done, you know, go to work. Get it done and uh -- you know, be smart 37 about it. 38 39 KELIHER: Sean any questions? 40 41 MORETZ: No, I'm fine. 42 43 KELIHER: We really appreciate it. I know you've gotta get going. Um, Jim. 44 45 STRUHSAKER: I'm signing off and thank you. 46

KELIHER: Um, Jim can I show him any of the pictures or um, talk about anything else STRUHSAKER: Yeah, and I think the other thing I'd comment is that I'm comfortable if the group is comfortable that uh, Bill and his wife get back to normal as far as with their friends or contacts and I -- and we support that in your healing process, you know getting back into your community. But you know, for -- you still might wanna limit, just for your own sake, uh, how much conversation is direct on this and slowly integrate it into your process. KELIHER: Do you want to talk to him about any of our findings so far? STRUHSAKER: Um, I know we've got a dateline right now and I'm -- at some point when you get squared away back home here in the next week you're welcome to give me a call and uh, if you wanna give him my number or contact, I'll be happy to do that. MR. COULTAS: Okay. KELIHER: What time is it? MALE VOICE: [Unintelligible] time to go. STRUHSAKER: It's pumpkin time. MR. COULTAS: Is it 1:30? MALE VOICE: Yeah --STRUHSAKER: Alright, thank you and Jim's signing off. I want to thank --KELIHER: Thanks Jim. STRUHSAKER: Yeah, thanks Sean and uh --MALE VOICE: Take care Jim. Don't eat too many pineapples. MALE VOICE: Thirty more minutes is all we needed. KELIHER: I know. MR. COULTAS: Well Chuck it was good meeting ya. I'm sorry in it was in these circumstances. MRS. COULTAS: That's [unintelligible] at.

1	MALE VOICE: Oh, I gotcha, plus the
2 3	MRS. COULTAS: Right
4	MALE VOICE A
5 6	MALE VOICE: Are you in therapy now are you
7 8 9	MRS. COULTAS: Well, we're hoping next week but right now we haven't been able to get anybody even with a prescription because it's a workman's comp claim
9 10 11	state-to-state. So they're requiring an actual referral which I will get today. I've already
12 13 14	MR. COULTAS: But we've been kind of really pushing on my hands. My left hand is the worst. I'm feeling it clear back up to here
14 15 16	MALE VOICE: Were you saying your elbow is open?
17 18 19	MR. COULTAS: Yeah, it's an open wound right here like that and then I've got a big one, open wound down in here.
20 21	MRS. COULTAS: Well this this whole arm was open to the bone.
22 23	MALE VOICE: [Unintelligible] know how you're feeling.
24 25 26 27	MR. COULTAS: Yeah, and then uh you know this pretty much from my fingers up to here so basically just
28 29 30 31	END