Air Methods A350B3e accident Frisco, CO July 3, 2015 CEN15MA290

# NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ATTACHMENT 2

Interview Transcripts

505 Pages

### UNITED STATES OF AMERICA

#### NATIONAL TRANSPORTATION SAFETY BOARD

Statement of: MATTHEW BOWE

Saturday, July 4, 2015

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## I N D E X

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1	INTERVIEW
2	(4:37 p.m.)
3	UNIDENTIFIED SPEAKER: Personal statement from Matt
4	Bowe, July 4, 2015 at 4:37 p.m.
5	STATEMENT OF MATTHEW BOWE
6	MR. BOWE: Hi, my name is Matthew Bowe, M-a-t-t-h-e-w,
7	last name is Bowe, B-o-w-e.
8	On Friday, July 3rd at about 1330 in the afternoon, my
9	colleagues, Patrick Mahany, David Repsher and I, prepared to
10	embark on a flight to Gypsum, Colorado for a PR event with
11	Boy Scouts of America and their wilderness survival training.
12	Boarding the aircraft was uneventful with a walk around.
13	And as we took off I was seated in the right rear seat; David
14	Repsher was in the left rear seat; and Patrick Mahany, of course,
15	was the pilot and he was seated in the front right of the
16	aircraft.
17	Immediately upon taking off the aircraft kind of had a
18	rough takeoff with some unusual pitch and we begun to make a
19	counterclockwise turn. This with the exception of the rough
20	pitch, the counterclockwise turn isn't unusual since that's the
21	way we usually debark from our helipad; however, we sort of paused
22	momentarily with that left turn before we continued climbing and
23	turning. Some pilots take off using that sort of corkscrew
24	method, but that's unusual for Patrick.
25	We made at least one 360-degree turn, so we were again

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1 oriented in the usual -- I quess it would be a northwest 2 direction. And I think probably by this time, you know, Dave and 3 I definitely looked at each other kind of quizzically and we -- it 4 seemed like Patrick made an attempt to gain some forward airspeed and we kind of moved from being directly over our helipad to kind 5 6 of over a road and an open field area where we, you know, often --7 you know, that's often our flight path; however, we didn't get a chance to gain any forward airspeed. And, you know, after a very 8 9 brief forward flight, we violently began spinning

10 counterclockwise.

11 I shouted "Patrick" over the radio or I said his name 12 over the radio, but he didn't respond. He was visibly, you know, 13 preoccupied with trying to maintain control of the aircraft. Ι 14 distinctly recall tightening my seatbelts, and really I feel like 15 my emotional reaction was disbelief more than anything. I was 16 under the impression that we were spinning counterclockwise while 17 climbing to the left; that would be spinning counterclockwise 18 while climbing to the south. In fact, we were probably descending 19 along that same trajectory.

20 We struck ground and I distinctly remember hitting my 21 helmeted head on, you know, several points inside the cabin. And 22 I wasn't knocked out, but I definitely saw, you know, black or saw 23 stars for a moment; my eyes were closed. When I opened them, I 24 still feel like my main overriding emotion was sort of disbelief, 25 but also a conscious attempt to be systematic.

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I looked to my left and I didn't see Dave. I saw instead, you know, a gaping hole or open air to his side of the aircraft. I don't recall if his seat was in the aircraft or if it was -- you know, a cracked opening or if that sliding left door had been, you know, torn off.

6 Patrick was laying -- so, I was ajar from my usual 7 seated location and had been shifted sort of to the right. The aircraft came to a rest on its right side. So I was sort of 8 9 sitting in the area that is our fluid bin and that right side 10 wall. I don't recall ever unbuckling my seatbelt, so I suspect I 11 was thrown out of my seat. At my -- my left leg was wedged 12 between the pilot's seat and the pilot's external backup oxygen canister. And that's unusual since that's sort of the location 13 14 where my right foot would usually be and my left foot would be on 15 the other side, the left side of the pilot's seat.

Patrick was laying, side lying or -- well, side lying really on the ground/the right side of the helicopter, where like the gull wing door, the pilot's gull wing door would be.

I didn't at that moment have any, like, urge to immediately kind of egress the helicopter. I was really kind of just taking measure of my injuries, and I felt that I'd been, you know, unscathed.

I reached down and I touched Patrick's neck, but because of the way he was laying I couldn't palpate a pulse. I pinched his cheek. And then I kind of looked outside the helicopter and I

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1 saw a bystander cyclist who was clad in Lycra, and he was kind of 2 like -- you know, had a frantic expression on his face. And I 3 think that might have, might have hit home with me and I kind of 4 felt the urge or the need to, you know, get out of the helicopter 5 as quickly as I could.

I noticed that fuel was starting to, was starting to Iike flow around Patrick and sort of like rise around Patrick on the floor or on the asphalt. I tried to pull back on my foot but I had no strength in my legs. I think I used my hands to kind of un-wedge my left foot. And then I put my hands on like the cracked cockpit of the helicopter and kind of pushed myself out like you would getting out of the swimming pool.

I kind of tumbled down the remaining cockpit exterior. I stood up but didn't have any strength in my legs. I stumbled, kind of fell, and then I started rolling or sliding away from the helicopter. Someone dragged me from my -- like under my armpits, dragged me backwards and I shouted, you know, that Patrick was still in there.

Jimmy is a radiology tech at Summit Medical Center, and he -- I saw him running toward the helicopter with a fire extinguisher as flames started to engulf the helicopter and started to roll down from the rear of the helicopter toward the front where Patrick was. He battled the flames and tried to reach Patrick. I think he caught his hair on fire and retreated for a minute, and then went in again and ended up pulling Patrick out.

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And eventually Patrick and I were dragged farther away from the
 aircraft and were next to each other.

3	I was supine and couldn't, I couldn't roll or sit up or
4	move from that position. Patrick was lying on his side facing me.
5	I could see he had some burns to his face and he was groaning.
6	And I never saw Dave at all throughout the events after the crash.
7	That's my recollection of the events on July 3rd.
8	(Whereupon, the statement was concluded.)
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#### CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: FLIGHT FOR LIFE HELICOPTER CRASH FRISCO, COLORADO, ON JULY 3, 2015 Statement of Matthew Bowe

DOCKET NUMBER: CEN15FA290

PLACE: Denver, CO

DATE: July 4, 2015

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.

> Elizabeth Cochran Transcriber

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INVESTIGATIVE INTERVIEW	*	Docket No.:
RE FRISCO, COLORADO	*	CEN15MA290-91489
ACCIDENT THAT OCCURRED ON	*	
JULY 3, 2015	*	
	_	

### INTERVIEW OF: WILLIAM HARPER

Friday, October 23, 2015

7:04 a.m.

Air Methods 7211 South Peoria Street Englewood, Colorado 80112 From the NTSB:

KATHERINE A. WILSON, Ph.D. JENNIFER S. RODI, Ph.D. CHIHOON SHIN

From the FAA:

MATTHEW RIGSBY

From Airbus:

SETH D. BUTTNER ED STENBY

Representing Air Methods:

COREY J. WRIGHT, ESQ.

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1	PROCEEDINGS
2	DR. RODI: All right. So you know that
3	we're here today to continue in the investigation of
4	the Frisco, Colorado accident that happened on July
5	3 of 2015. Our purpose today is a continuation of
б	that investigation with our goal to be improving
7	safety, establishing the facts and circumstances
8	surrounding the accident, and preventing accidents
9	from happening in the future if at all possible.
10	We're not here to assign fault, blame, or
11	liability during these interviews or discussions
12	today or at any time during the course of the
13	investigation. We cannot guarantee confidentiality
14	or immunity from anything during our interview or
15	our conversation today. A transcript of our
16	conversation will be available in the public docket
17	following the completion of the investigation, and
18	you're entitled to one representative during the
19	course of the investigation. He's not allowed to
20	testify or answer questions for you today. Any
21	question with regard to that?
22	MR. HARPER: No questions, thanks.
23	DR. RODI: Excellent. So we've all
24	introduced ourselves. You understand our different
25	roles with regards to the NTSB and manufacturers.
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1	We allow different people in during the interview
2	process as part of the party status or the
3	accredited representative and technical liaison
4	status during the course of the investigation. It
5	allows for a more thorough and transparent
6	investigation.
7	Do you understand that you mentioned
8	that you've attended previous interviews or
9	briefings like this associated with other accidents.
10	MR. HARPER: No, I have not
11	DR. RODI: Oh, you have not?
12	MR. HARPER: is what I was saying,
13	right, right.
14	DR. RODI: Okay. So during the course of
15	the investigation, it's standard for us to interview
16	different individuals with a company such as Air
17	Methods, the director of operations, the chief pilot
18	director of training, to understand how it is that
19	they conduct business so that we can better
20	understand the culture and the environment of that
21	particular business. We're in the fact-finding stage
22	of our investigation. Once we've finished with that
23	process, we will produce a final factual report, and
24	then an analysis or and a probable cause will be
25	concluded upon.

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1	MR. HARPER: Those I'm familiar with.
2	DR. RODI: Excellent, excellent. As Dr.
3	Wilson stated, if you don't understand any question
4	that's asked of you, if you want it repeated, don't
5	hesitate to ask. If you want to clarify something
6	that you've stated previously, don't hesitate take
7	to do that.
8	Dr. Wilson will lead the interviews
9	today. She'll ask the questions, and at the end we
10	will open it up to the other individuals here this
11	morning for follow-up questions or clarification
12	questions, again, in order to ensure that we're
13	covering our bases and anything pertinent or
14	relevant is covered. So any questions?
15	MR. HARPER: No questions.
16	DR. RODI: Anything that you want to add?
17	Okay, excellent.
18	BY DR. WILSON:
19	Q If you could state for the record your
20	full name and your position at Air Methods.
21	A William Lamar Harper. I am an assistant
22	chief pilot.
23	Q And how long have you been in that
24	position?
25	A Since June 1, and in sort of a parallel
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1	function since the 1st of January.
2	Q Okay.
3	A The title changed to assistant chief the
4	lst of June. So I was a training manager to that
5	point.
6	Q And what are your duties and
7	responsibilities as the assistant chief pilot?
8	A Oversee the training and the training
9	staff for the AS350 and the ES130 helicopters, and
10	to monitor and ensure compliance with the operations
11	particularly related to those aircraft.
12	Q What other positions have you held at Air
13	Methods?
14	A I was check airman in the AStar a period
15	of time prior to the first of the year, and I was an
16	EC145 check airman trainee prior to that starting in
17	June of '13.
18	Q And when were you hired by Air Methods?
19	A I think it was the 2nd of June in 2013.
20	Q Okay. If you could give me a brief
21	description of your aviation background leading up
22	to Air Methods.
23	A Started flying general aviation aircraft
24	in '79, went to Army Flight School in 1982. I was
25	an instructor pilot in the Army, took a direct
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1 commission position with the Coast Guard, flew with the Coast Guard as an operations pilot, instructor 2 I had a break 3 pilot, and maintenance check pilot. 4 in service, came back and flew with the Army National Guard here in Denver as an instructor 5 pilot, maintenance test pilot, and unit commander, 6 7 retired in 2008 from the military, worked overseas as a maintenance manager and instructor pilot in the 8 Iraqi Flight School, from there flew for one of our 9 competitors, an EMS, Classic Lifequard in Vernal, 10 11 Utah, flew contract for the U.S. Army as the instructor pilot, standardization officer for the 12 U.S. Army at Fort Irwin, California, and then came 13 to work for Air Methods. 14 What is your total time? 15 0 Approximately 6,700. 16 Α Is that all rotor, or fixed-wing too? 17 0 About 75 hours of fixed wing, so it's 18 Α 19 mostly rotor wing. And how much of that time, estimating, do 20 0 21 you think is EMS related? 22 Α Well, I had seven years in the Coast Guard, and about a third of those missions are very 23 similar. I had 1,900 hours in the Coast Guard, so 24 25 13, 1,400 hours there, and then another hundred

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hours or so with Classic Lifequard. And then I --1 during my training, I flew the line for a few weeks 2 with Air Methods but have not been in the regular 3 line position for several years. 4 Who do you report to? 5 0 Raj Helweg, our chief pilot. 6 Α Is that for the duties as training 7 0 manager also? 8 9 Α Yes. Are you required to fly as a part of your 10 0 11 position? Generally, yes, although I've gotten busy 12 Α lately and have gone non-current. I haven't flown 13 14 since about April. I will be getting 2 15 What are the general requirements to 0 maintain currency in your position? 16 17 А It's the same as our line pilots. Same exact requirements. 18 Could you tell me what those are? 19 0 Having flown within 60 days, and 20 Α Yeah. having flown NVGs, there's a couple of look-backs. 21 But if I'm going to be flying with trainees, go back 22 about a month. 23 How many staff are in the training 24 0 25 department?

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1 Α I don't know exactly, but we have approximately 40 check airmen. And I can't tell you 2 about the other support staff. Don't know. 3 4 0 How does Air Methods train their pilots 5 starting from a new hire? They go through a indoctrination course 6 Α 7 where we review all the required FAR things, as well as company policy, procedure, general operations. 8 There are some classes for night vision goggles, and 9 10 flight physiology, and some training on working with 11 med crews. We assume that the trainees have not flown EMS or HAA ops before, and so they get 12 training in that regard. Then they go to their 13 14 individual airframe ground schools, and then they 15 move into the night training for their individual airframe for their initial gualification, and then 16 on to their base for local area orientation, and 17 then recurrent training and checks annually. 18 Is there simulator time included in that 19 Ο 20 training? We have simulators for some airframes. We 21 Α have aviation training devices for some airframes. 22 With the AStar we have -- you know, it's a nonmotion 23 aviation training device -- can't guite call it a 24 25 simulator. We have several of those, and they

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1	travel around the country. And we hope to shorten
2	the time between training events by having the
3	pilots get into this visual simulation device and
4	work on instrument procedures. And they do that
5	also one time during indoctrination. We will begin
6	simulators in the future, the full-motion
7	simulators. Looking forward to it.
8	Q For the AS350, is that the fixed-base
9	simulator?
10	A No. There's the traveling oh, you
11	mean nonmotion simulator? Yes, there is.
12	Q Is there a motion simulator?
13	A There will be, but we don't have that at
14	this point.
15	Q What are the are there hourly
16	requirements for being in the simulator and flight
17	time that's incorporated in the training?
18	A We have two hours of annual training
19	requirement prior to their check, and we're not
20	always able to get the pilot in that AATD. But if
21	they do get into AATD, typically, they get two
22	hours. And we'll count that towards half of their
23	required training prior to their check. So they may
24	have an hour in AATD, and an hour in the aircraft,
25	specifically NVGs, flying under night vision
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1	goggles, and we look back a year for that. We try
2	and get that at least part of that just prior to
3	their check. If they don't have an AATD, they fly
4	in the aircraft typically just prior to their check
5	for two hours at a minimum. Long answer to a short
6	question, sorry.
7	Q Is all the training offered to pilots
8	in-house, or do you go to external companies to
9	provide that training?
10	A It's all in-house.
11	Q How is standardization maintained from
12	one check airman to the next?
13	A We have a lead check airman in each
14	airframe, and then an assistant chief pilot who has
15	a group of airframes he's responsible for. And
16	through the lead ACE disseminating anything that
17	comes up the answers for anything that comes up
18	as a question of standardization, and specifically
19	the pilot training program written standards and
20	requirements, and then I oversee that. And when we
21	can, although I don't have a minimum number of
22	required events, I try to get the lead in with the
23	ACEs while they're doing their job. That's a little
24	easier to do with the AStar and centralized training
25	that we have for the AStar, as opposed to the other
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1 airframes. 2 0 What documents or manuals are provided to 3 pilots during training? There's the GOM Op Spec, the RFM, which 4 Α is the rotocraft flight manual, the online training 5 documents. The materials that we use in training, 6 7 they can access online. Any number of other things that -- we point them at the rotocraft manual, FAA 8 training manuals. I'm trying to think what else. 9 The pilots, they develop study quides, and we try 10 11 and assist them with that. 12 Is Career Source Management included in 0 13 your training? In the indoc class, it's -- what do 14 Α Yes. 15 we call it -- a module. And then we integrate that into the recurrent training, and it's looked at 16 17 during evaluations as well. What aspects of CRM are trained? 18 0 Well, because we're single pilot, there's 19 Α some unique aspects; specifically, the importance of 20 teamwork with the medical crews, particularly with 21 regard to communication in critical situations, 22 takeoffs and landings. Medical crew know that if 23 they see a hazard, hey, call it out. The pilot is 24 25 expecting them to do that. And the pilots will

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1	announce if they have something that's a potential
2	hazard in sight, we make sure that that
3	communication is always facilitated.
4	Then a part of CRM is also cockpit
5	management, and we talk about ensuring that you're
6	ready, having the aircraft set up for things that
7	might happen, inadvertent IMCE or those kinds of
8	things, and that they would have the materials they
9	need at hand. And anything that they need
10	individually, whether it's a helmet or a lip light,
11	they're set up so they're ready to be safe and
12	effective.
13	Q Are there resources available to the
14	pilots outside of the cockpit that they can rely on?
15	A Well, there's always air traffic control
16	in the event that if for instance, if they punch
17	into inadvertent IMC, but they're also in
18	turbulence, it's more important that they keep their
19	hands on the controls and not be reaching for
20	procedure material. We train that you have
21	resources with the air traffic control folks. To
22	declare an emergency, ask for the information you
23	need, ensuring that you're always flying the
24	helicopter first.
25	Q What support does the operations control
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A Before we move on, also, we remind them that they do have the medical crew if they need to hand them something to read, to assist through a checklist during that inadvertent IMCE, or an extra set of eyes that they can use as a resource in the back of the aircraft.

Prior to departure, and to a lesser extent while they're flying, they can call the OCC for assistance in making a decision based on weather. And that's in addition to the normal weather sources.

Q Is there any specific training for the AS350 provided related to the hydraulic checks?

15 Α We have five variants of the AS350 in the 16 company, and there is some variation in the 17 hydraulic checks. So the hydraulic checks, as the 18 systems and the checks, are all covered during initial qualification. And if a pilot's going to be 19 flying a different variant, then that's covered with 20 differences training as well. If -- for instance, if 21 they're going from a single to a dual hydraulics 22 aircraft, the systems and the procedures are covered 23 in differences training. 24

Do pilots switch between the single and

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15 1 the dual hydraulic helicopters regularly? 2 Α What's regularly? Occasionally. I'm trying to think of instances where a dual hydraulics 3 might be the backup, you know, the relief aircraft. 4 Those may be -- I don't know. But I know that we 5 have relatively few dual hydraulics aircraft. 6 And 7 when those pilots come through for differences training, we make a point to address the differences 8 in the systems and differences in the operation of 9 10 those systems. 11 0 How would a pilot know that they're flying a helicopter with dual hydraulics versus 12 single? 13 It would be on the checklist and the RFM. 14 Α 15 They would know that from their preflight. It's 16 pretty obvious as you're looking at the systems 17 whether it's single or dual. And they just have 18 general knowledge. They need to be aware that you're -- they're going to be flying a dual 19 hydraulics, so make sure that you're up to speed on 20 21 your systems and procedures. What are some of the differences between 22 0 flying the single versus dual? 23 Α We have an emergency procedure for 24 25 hydraulics failure with a single hydraulics but not

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1 with the dual. And then the run-up procedures differ, and then the components that you look at 2 during the pre-flight differ. And that would be 3 from the perspective of the pilot, the line pilot. 4 What documentation is required by 5 0 instructors to be kept for both ground school 6 7 simulator and flight training? Well, you mean in terms of the training 8 Α records for a line pilot? 9 10 Yes. 0 11 Α Oh. Well, we have a training records staff, and we submit all the records from ground 12 training, flight training, ground training starting 13 with indoctrination in all different modules. 14 A]] 15 those records are maintained, along with the flight 16 training forms and the evaluation forms for each 17 pilot in their records file. The bases maintain 18 local orientation records. Any correspondence related to authorization, if they become a check 19 airman or a training captain, are kept with those 20 21 records. And then each year's recurrent training, both ground and flight, are kept on forms you need 22 to do the type of training along with their 23 evaluations. So is that the kind of answer that you 24 25 were asking?

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17 1 0 Yes. The documentation, is it a 2 pass/fail, or are there notes that are associated 3 with that? 4 Α On the training forms, you can annotate that they exceeded the standards, met the standards, 5 or failed to meet the standards by maneuver. 6 And 7 you can annotate that if they failed to meet the standards in the maneuver, that it was retrained, 8 and then they met the standards. If they had 9 difficulty with a particular maneuver or just 10 11 generally, that would be noted in the comments. And 12 often, anything noteworthy would be added to comments as well. If a pilot's particularly capable 13 14 in a first flight in a new airframe in a 15 qualification course, a comment like that will be noted as well. 16 The marking of "exceeded the standards" 17is relatively unusual, but you will see that. The 18 primary focus is to ensure that they meet the 19 standards. 20 How do trainees, per the pilots, provide? 21 0 22 Α Feedback about the training that they received formally and informally; formally, through 23 feedback surveys that are provided to everybody 24 25 following indoc. And then just simply following

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1	other training. Also, during the debrief following
2	training and evaluations, they're given the
3	opportunity to provide feedback. And then are
4	you talking about feedback on their training?
5	Q On the training they received.
б	A Yes. Directly in discussion in the
7	debrief following the flights. And then informally,
8	we try to purposely create an environment where
9	and it's part of our brief, that if anything's
10	unclear, or there's any confusion as we're training
11	or conducting evaluation, stop, provide me some
12	feedback in discussion, and we'll get it
13	straightened out, and then we'll move forward.
14	Don't continue if you don't understand what we're
15	trying to do.
16	Q What role, if any, does the training
17	department play in accident investigation or
18	incident investigation?
19	A Using this one for an example, I have not
20	been involved at all in the investigation except
21	for, you know I guess an informal question, you
22	know, questions about flying with Pat during his
23	evaluation in March. But I haven't been involved.
24	Sometimes if there's been an accident or incident,
25	we're asked about systems or procedures so people

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19 that are investigating understand. But I haven't 1 done that to this point, but I'm doing it today. 2 I think you might have briefly touched on 3 Ο this in another answer, but I just want to clarify. 4 Do you observe the ground schooling training? 5 As the supervisor of the check airman, I 6 Α 7 periodically sit in and participate. And I also --I have the same training requirements when I am 8 maintaining currency as the other pilots. 9 So I have to go through the training annually as well. 10 11 Q From the supervisor's standpoint, how often do you observe the training? 12 I'm involved in centralized training for Α 13 14 the AS350, and field training for EC130. And 15 because I maintain an office at the facility where the classrooms are, for probably three-quarters of 16 the ground classes I'll stick my head in and see how 17 things are going and meet the trainees and make sure 18 they know that check airmen are available to help 19 them beyond just the classroom. So I get a chance 20 to sit in and watch a little bit. 21 I don't sit 22 through a day's worth of training each time we do 23 it. And then the field training, we often 24

will do the initial ground class before the trainees

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1	leave the training center after indoc, and sometimes
2	I'll sit in on that once a quarter.
3	Q When was the last time you sat in on any
4	training?
5	A It was this week. I think Tuesday I sat
6	in on the AS350 ground school systems classes for a
7	group of five new hires and one re-qualed pilot.
8	Q The check airman duties, I'd like to
9	focus on that a little bit. Walk me through what a
10	typical check ride would look like for let's go
11	with a dual hydraulic aircraft.
12	A Okay. It would be the sequence is
13	going to be pretty much the same for all the
14	aircraft. And then I'll see if I can highlight the
15	areas where it might be different for a dual.
16	The trainee, through the check the
17	pilot being checked, has typically just completed
18	some training, to finish up what we talked about
19	before, that two-hour requirement. So they already
20	know the instructors. We may swap instructors and
21	evaluators just for standardization. So it's
22	initially there's an introduction and explanation of
23	expectations and requirements. We start by checking
24	their certificate and their flight physical to make
25	sure that they're current, and that we are required
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1 to check for photo ID. And we have a structured oral evaluation, and that takes approximately an 2 hour to an hour and a half, typically. And then a 3 preflight prior to flight to check weather notams, 4 aircraft maintenance logs, to ensure that the pilots 5 logged in on the system, that they're on duty 6 7 officially and those kinds things. And then we'll If the oral has gone well, we'll walk out 8 walk out. to the aircraft and do a preflight, and typically 9 take that opportunity to talk about the systems, and 10 point and talk and discuss and ensure appropriate 11 depth of knowledge. 12 When the preflight's complete, we'll 13 14 contact aircom, let them know departure time and 15 expected flight time, and who's aboard, basically to And then take off and fly through the 16 file. 17 required maneuvers. If there's a deficient maneuver, stop training or stop evaluation, retrain 18 a maneuver and then continue. 19 If that happens

20 again, then that evaluation is a failure. 21 And upon the completion of the flight, 22 the post-flight checks are done, the paperwork's 23 completed in terms of the aircraft maintenance logs. 24 The training or evaluation forms -- evaluation form 25 is completed. All the forms are reviewed. There's

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1	the debrief with the evaluee, and the forms that
2	need the signature of the evaluee are signed and
3	submitted. That's the sequence.
4	Q How many checks would you say you do on a
5	quarterly basis?
6	A Me individually?
7	Q Yes.
8	A Well, I haven't done any in the most
9	recent two quarters. Probably did three. And I'm
10	guessing. I don't know exactly without going to
11	look. Probably three in the quarter prior to that.
12	And without checking, I don't know, but some number,
13	maybe 6 to 10 prior to that. When my job title and
14	responsibilities changed, the focus shifted, even
15	though I still maintained the check airman
16	qualification, and the frequency then is reduced.
17	Q You mentioned that as a part of this
18	investigation, you were asked about the check ride
19	with the accident pilot, Pat?
20	A Just in an informal way, you know. My
21	supervisors wanted to know about him.
22	Q So did you review his records, or were
23	you just recalling from memory?
24	A Well, I knew Pat, so I recalled the
25	flight with him. I did later look at the forms. But
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-- and I can kind of characterize for you how that went.

I instructed in a lot of different 3 organizations, and I haven't checked lately, but I 4 probably have about 600, 700 hours of instructor 5 time, instructing and evaluating. And you can tell 6 7 early if a pilot's the master of the aircraft, and Not that you let your guard down, but it 8 Pat was. brings the evaluator's stress level down a little 9 bit, so that's something you remember. 10 You remember 11 those who are really good and those who are really And the criteria for the evaluation is, is the 12 bad. pilot the master of the aircraft, and is there never 13 14 at any time during any maneuver a question of 15 whether or not it will be safely completed, and then 16 the specific standards for each maneuver, airspeeds, 17 and altitudes, and so forth.

And so this was the first time I flew 18 I knew him previously from having had him 19 with Pat. present during my indoctrination to the union rep 20 information. And then as he would come in to visit 21 with new hire classes, we socialized in the hall. 22 Eventually then, we served together on the ASAP 23 event review committee and I got to know Pat that 24 25 way.

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But the evaluation that we did in March 1 was the first time that I flew with him. And we 2 spent some time on discussing the dual hydraulic 3 4 system, a little extra time during the pre-flight, because I knew he was flying the B3e with the dual 5 hydraulics. And when we flew, it became readily 6 7 apparent that Pat was a good -- had good control touch and good mastery of the aircraft, and he flew 8 all the maneuvers easily to standard. 9 There was no 10 maneuvers that we needed to stop and retrain or 11 anything like that. And he had a lot of time, and he took a very professional approach, and it was 12 13 obvious. Was there anything during the check ride 14 0 15 that needed remediation?

We spent a little extra time 16 Α No. 17 discussing inadvertent IMC, and Pat was a leader, as 18 kind of a senior pilot, in an informal way, although he was involved in just about every way someone that 19 wanted to really pursue professional approach to 20 21 piloting could be. He was checked out to do maintenance test flights, which requires stepping 22 forward and saying this is something I want to do. 23 He had responsibilities to interact with the 24 25 community when there were noise complaints. He had

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1	a lot of experience, so I'm sure that new pilots
2	visited with him to gain insight into how we do
3	business. And he obviously, as I mentioned before,
4	flew the aircraft very well, and from every
5	indication knew systems very well.
6	Q What would you say was his greatest
7	strength as a pilot?
8	A His experience and depth of knowledge.
9	Q Any area that you think he could improve
10	upon?
11	A There really weren't.
12	Q Okay.
13	A I mean, no flight is ever perfect. I
14	don't care how much experience, how much knowledge
15	you have, you could have hovered a little closer to
16	the centerline. You could have been a little closer
17	to that airspeed. And Pat flew particularly well,
18	but we all could do a little better. There was no
19	deficiencies noted.
20	Q And I think you've alluded to this, I
21	will just ask the question directly. How would you
22	rate his performance compared to other pilots that
23	you've done check rides on?
24	A Above average.
25	Q And the outcome of the check ride?
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1	A Was a pass, a go.
2	Q You mentioned that prior to liftoff, you
3	contact aircom?
4	A Yeah. I think, if I remember correctly
5	and again, it's been a while there was a
6	period of time after we established we
7	established the training facility before we had a
8	relay, and we initiated the communications with
9	aircom via telephone prior to takeoff. I hadn't
10	thought about this for a while. But as I do, I
11	think we had just put in place the repeater and were
12	able to contact aircom from the aircraft and give
13	them the standard departure time, who was aboard,
14	what we're doing, how long we're going to fly, how
15	much fuel. I think we I'm not sure if we did
16	that via telephone or radio because that was right
17	at the time we made the switch.
18	Q Is that type of communication something
19	that would be done before every flight?
20	A Yes.
21	Q Would that include a public relations
22	flight also?
23	A Yeah.
24	Q Okay. Regarding the normal procedures
25	checklist, I have it here, if you need to see it.
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1	But one of the items says hydraulics check. Could
2	you explain what a pilot would do during that
3	sequence?
4	A Yeah. In the dual hydraulics?
5	Q Yes.
6	A I don't remember without looking, but if
7	the servo test button is separate, before the engine
8	is started, you check the circuit with the servo
9	test button.
10	Q It's not a secret. If you want to look
11	at that, you can.
12	A This doesn't really expound. This
13	applies both to well, it's a B3e. I'm not
14	qualified in the B3e. I am in the dual hydraulics.
15	The systems are basically the same. And we were
16	using, on his eval, the checklist for the aircraft
17	which I believe was a B3/2B1 dual hydraulic or
18	single hydraulics. At that time we did not have
19	dual hydraulics training aircraft at that location.
20	But during the dual hydraulics run-up, you start the
21	engine, you get the hydraulics system pressurized,
22	and then you test the various components of the
23	system. And since we were flying a single
24	hydraulics, we did not exercise those dual
25	hydraulics specific tasks. I can try to recall what
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1	he would have done in the B3e, or I could talk about
2	what we did in our eval.
3	Q Well, sounds like there's multiple steps
4	that are involved in hydraulics checks.
5	A There are.
6	Q Is there an expanded checklist that a
7	pilot would use in the aircraft?
8	A Yes, it's available. And they can commit
9	that expanded checklist to memory and use the
10	prompting from the normal procedures checklist. And
11	if they need to, they know they can reach for that
12	expanded checklist to get specific details on that
13	check.
14	Q Where is that expanded checklist located?
15	A It could vary by base. But typically,
16	it's in the door pocket, along with this checklist,
17	or in this inner console, depending on the
18	aircraft's configuration, but readily at hand.
19	Q Okay. Prior to the accident, were you
20	aware of the safety information notice that came out
21	on the hydraulic on the dual hydraulic power?
22	A I get all of those safety information
23	messages and the bulletins. So I hadn't thought
24	about the sequence, but I was aware of those as they
25	were disseminated. I can't tell you if it was

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before or after the accident, which was, I think, 1 2 the 2nd of July. So those I'm not sure, and I'm not sure exactly which safety bulletin you're referring 3 4 to. 5 0 It was from August of last year. Α So was the question prior to the 6 Yeah. 7 accident? 8 0 Yes. I wasn't because it came out after the 9 Α accident. 10 11 0 This was August of 2014. I had reviewed it, yes. 12 Α 14? How do you receive these? 13 0 Our technical bulletins representative 14 Α 15 receives these from all of the different original manufacturers and so forth, and the engine 16 17 manufacturers, and those are then forwarded to the assistant chief pilots and the bases. And I receive 18 them from the technical bulletins rep. 19 Do you know that person's name? 20 0 21 Yes, but I can't get it right now. Ι Α look at it every day several times. 22 What is typically done when you receive 23 0 one of these notices? 24 25 Α Let's back up. When this came out in

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1 '14, I was a new check airman and not yet receiving all of these bulletins. So this would have been 2 forwarded to me by either the assistant chief pilot 3 4 or the aviation training manager that I worked for at that time, or the lead ACE, and I would have 5 reviewed it at that time. And I was not training in 6 7 a dual hydraulics aircraft, so I would have been aware of that and not really immersed myself, so 8 just for clarification. 9 What was your last question 10 then? 11 My question is, when these are received, 0 12 what happens? Oh, what do I do with them? 13 Α Yes. I qet 14 everything that's related to my aircraft and all the 15 other aircraft. So I look through each one, and I determine who needs to know this. I'm aware that 16 17 these are sent to -- depending on the type of notice, are sent to the maintenance folks, but 18 sometimes I'll discuss that with the local 19 maintenance supervisor. If it relates -- if it's 20 got wings like this, it means that's something a 21 22 pilot should know. And I keep a copy in an electronic file, and I forward it to the check 23 airmen and send them a little e-mail that says 24 25 review and be familiar, something to that effect.

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31 1 If it's for a PT6 engine that we don't have in any of the aircraft I'm responsible for, or 2 it's a Bell product, I delete it. 3 Beyond forwarding to the check airmen to 4 0 say review, are any of these notices used to make 5 changes to training? 6 7 Which reminds me that as we Α Yes. received from Seth's folks a recent safety bulletin, 8 we posted the pages provided in that annex into the 9 10 RFMs, and I disseminated that to the regional 11 directors with high priority on the e-mail, and directions that these need to go out to the bases, 12 and the pilots on duty need to post those pages. 13 14 And because it was a safety bulletin rather than a change to the RFM, I also had a discussion with the 15 chief pilot and the director of ops. 16 I wanted to 17 ensure that that's what they wanted me to do because not having it as an RFM change, it's not a required. 18 But in the -- a required change. 19 But in the discussion, it was the prudent thing to do. 20 So I 21 took action as quickly as I could, and we got those 22 pages posted in the RFMs around the country. Also, if it's something of significance, 23 and these were, in the centralized training 24 25 facility, I would tape these, and they're printed

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1	red, onto the white board in the check airmen's
2	office, and I'd mark on the board read this today,
3	or look, or something to make sure that they saw it
4	right away, because I may or may not be there when
5	they come in to fly at night.
6	Q Is there any sign-off that a check airman
7	needs to do to let you know that he or she read
8	that?
9	A I get a I send it with a I forget
10	what it's called, but I know that they've received
11	it and when they read it.
12	Q The read notification, the e-mail?
13	A Yes.
14	Q Okay. And then how would the pilots find
15	out about this information?
16	A Well, if they're on duty, they would have
17	received word from their RAD, hey, here's a change,
18	and review it, post it, and give me your questions.
19	"RAD" is regional aviation director. Forgive me for
20	speaking acronyms. And when they a line pilot
21	would be relieving the person that did that, they
22	would have that as part of the brief for the shift
23	change.
24	The other thing I did with the safety
25	bulletins that were related this was posted a link

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1	to them, and a notice on 411. Are you familiar with
2	the 411 system?
3	Q I've heard about it.
4	A So it's one of the functions is, it
5	captures when a pilot goes on duty. They log on,
б	and they look and make sure that the record system
7	shows that they're current and able to do their
8	shift. And when they log on, before they can
9	actually log on, if there's anything like this that
10	they need to read, there's a notification that pops
11	up, and there's a tab. Usually there's the last
12	three are on that page, and some of them require
13	acknowledgement. But it's presented to them before
14	they can log on so they're aware that there's
15	something that has some significance that they need
16	to review. So that was the other thing I did when
17	the most recent safety bulletin came out, was to put
18	it on the 411 notification system.
19	Notably, yesterday, late yesterday, I
20	received a revision to the most recent safety
21	bulletin. So when we get done today, I'll be going
22	back to do exactly that process that I just talked
23	about with the revisions.
24	Q Regarding this specific safety
25	information notice, do you know if there were any

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changes to procedures or training?

A The first paragraph of this is something that we had begun to emphasize during the ground classes, specifically being aware of switchology, and that we thought there may have been some issues, and we would share the stories that we know with the trainees about suspecting that -- I think it was the Tucson aircraft that rolled over on the pad and may have had an issue with switchology, and that we had a pilot that began to take off, realized it very quickly, and she set it right back down. And we talked about those things as they were occurring. Besides being aware of what's going on

with safety events in the industry, within the company I received AIDMOR notifications. And as I mentioned, I'm on the ASAP committee. So I'm aware of events. And we make a point, then, to discuss those as check airmen, and to integrate those into ground training. So yes, these issues would have been added to the ground training discussion.

Q Are you aware of any discussions since this accident in July, changes to training or procedures?

A Yes, the -- this is a safety information notice. I've been referring to it as a safety

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bulletin, but really from Airbus, that provided --1 there was a notice that said, "Watch for the 2 forthcoming safety bulletin, " and the safety 3 bulletin that followed then had a discussion of the 4 change in hydraulics test procedures, and tail rotor 5 yaw compensator checks. The tail rotor yaw 6 7 compensator check was expanded in the post shutdown sequence in all of the AS350B3/2B1s, and then in the 8 dual hydraulics in that first safety bulletin, the 9 manipulation or the movement of the switches that 10 11 would have turned off the hydraulics system to check 12 the components, that was deleted from the run-up procedure, still had the servo test prior to start, 13 14 but only in the dual hydraulics, then, was that 15 And then that was communicated in the changed. notification on 411 and the e-mails I sent to the 16 17 RADs, and I sent a subsequent kind of clear text explanation to make sure that there were no 18 questions in pilots' minds that they weren't looking 19 at this and deleting the hydraulic check on the 20 21 run-up for the single hydraulics because that was 22 not a change, only in the dual, but also to ensure that the dual hydraulics switchology changes were 23 clearly understood, and that the expanded detail of 24 25 the post shutdown tail rotor compensator checks were

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36 understood as well. So they were disseminated, and 1 2 then they were followed up, kind of highlighting for clarification. 3 Will that also be incorporated into 4 0 5 training? Yes, yes, and has been. We now have a 6 Α 7 dual hydraulics training aircraft at centralized training, and we have incorporated these in all the 8 B3/2B1s, single and dual hydraulics, but notably in 9 the dual hydraulics. 10 11 0 What scenarios can cause loss of control immediately after liftoff? 12 Control malfunction would be a general 13 Α 14 way to -- or incapacitation of the pilot, I would 15 say, would probably be the two primary ways. How is that practiced in training? 16 0 17 Well, I don't mean to be flip. Α We don't 18 practice loss of control of the aircraft on takeoff, but we review control feedback, control lock-up, 19 binding during ground training. And the single 20 hydraulics aircraft, we do a hydraulics off 21 maneuver, where they maneuver the aircraft without 22 the benefit of the hydraulic boost assist, maneuver 23 it back, make an approach, and sometimes to landing, 24 25 sometimes to go-round.

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1	In the dual hydraulics, because of the
2	emphasis on switchology, and ensuring that the
3	systems are all operating and in place, now we're
4	highlighting to ensure that you don't have any
5	unusual feedback. But from the beginning of time,
6	when I started any of my training, one of the things
7	you can check on the ground and sometimes it's
8	formalized in a checklist, other times it's not
9	is to just do a quick control check, make sure the
10	pedals are cyclic, collective, or free, and then go.
11	We also do a hover power check on
12	maintenance flights. We do a controllability check,
13	particularly if we've been working on flight control
14	systems, to ensure everything's responding properly.
15	So as you run through the normal procedures, a pilot
16	receives feedback along the before you actually
17	try to take off. It would be like if you were
18	parallel parked and getting ready to pull out and
19	your power steering wasn't working, well, you'd turn
20	that wheel before you move, and you'd know this
21	isn't right. Same thing occurs as you begin to pull
22	on the collective. You begin to move the pedals
23	before you break ground. And if there's resistance,
24	you become aware, oops, let's check, make sure
25	everything's right, so
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1	Q Are you involved in changes to
2	checklists?
3	A I am.
4	Q How does that process work?
5	A We just completed a purposeful review of
6	all the checklists for all the fleet all the
7	normal procedures checklists. And in that process,
8	I involved my lead ACEs, who are my most experienced
9	and subject matter expert instructors and trainers,
10	and we looked at this, as an example, rather lengthy
11	checklist, and determined that it would be a
12	worthwhile effort to simplify some things. And so
13	we I was the for the AStars and EC130s, I was
14	the central coordinator to gather information, and I
15	met with the safety department. We had Jeff
16	Currans, a human factors background safety team
17	member. And after getting input from my lead ACE
18	and actually, I had other ACEs that were around, so
19	I got their input as well I reviewed those with
20	Jeff, and then I sent Jeff and an ACE out to sit in
21	the aircraft and run these draft checklists, and we
22	found areas where we wanted to make some adjustment.
23	And then when we had what we determined
24	would be a final product to submit to the FAA, I had
25	put those together, sent them to Raj, and it was

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oh, I had the other ACEs look at them one more time, and I turned them over to the chief pilot. And those have been disseminated and have not yet been implemented.

Now, when the safety bulletin that we 5 determined we were going to comply with as if it 6 7 were a change to the RFM, changed the procedures, I integrated that immediately into the expanded 8 checklist and made changes to the expanded 9 10 checklist. And when we sent the safety bulletin 11 out, I sent those out, and I posted them on the 12 website where the managers and pilots know they can go to get copies and print them if they need them. 13 14 But because it did change the subprocedure, I sent 15 those changes to the expanded checklist to the chief pilot, the director of ops, and to the regional 16 directors for review and dissemination. 17

Q And then what is the approval process, both within Air Methods -- to a checklist, within Air Methods, and then with the FAA?

A The checklists are an accepted, as opposed to an approved, in terms of terminology. We have the discretion to move forward with an accepted checklist while the FAA is reviewing it. In the case of the big checklist review, simplification,

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integration of human factors concepts change that we do to all the aircraft, we decided, since this was such a big change, let's let the FAA look at it before we implement it.

In the case of very direct and immediate 5 change to the expanded checklist, the approval for 6 7 the expanded checklist was via me, and the chief pilot and director of ops reviewing that. 8 And that needed to be a more timely response to get the 9 10 And it didn't change the normal procedure out. procedures checklist. So we haven't integrated the 11 12 new expanded while we wait for the FAA. They are accepting, not approving, but we're going to use 13 14 them in that case as part of the approved process. 15 And then myself, the chief pilot, and the DO, my supervisors, on my advice, approve the other 16 17 changes.

As a matter of routine, if there's an RFM change that would affect the normal procedures checklist or an expanded checklist, I work with the lead ACE to make those changes and submit them to the FAA, and integrate them into the field immediately.

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24 Q And pilots are made aware of these 25 changes through the 411 system?

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1	A And through e-mails, and through the
2	regional directors, to the base leads, to the
3	pilots, and then through recurrent training.
4	Also, one of the things we do is, we
5	invite the pilots to get back in touch with us as
6	they come through recurrent and make sure they have
7	contact information. And if any questions come up
8	when they get something like that, they can call us.
9	We periodically will receive an e-mail or a call for
10	clarification, something like that.
11	Q In the 411 system, do the pilots have to
12	check something that says they received an item that
13	was sent, or is it just assumed that a pilot will
14	receive that information?
15	A It can be set up either way. And
16	sometimes if it requires an acknowledgement, then
17	that can be tracked by looking at the system to see
18	who didn't acknowledge it but logged in, and then we
19	can follow up with them. But sometimes it's just a
20	notification. You need to look at this change.
21	Q Who determines whether there needs to be
22	an acknowledgement or not?
23	A The manager that requests that that
24	information be posted, typically. And that could be
25	the director of ops, it could be me, it could be the
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chief pilot. Just depends. Could be a maintenance -- something from the maintenance department. They want pilots to be aware of you know, an area of emphasis on a pre-flight inspection would be an example.

Q Are changes to the training similar to changes to a checklist, the process you would go through?

The changes to the training are changes 9 Α to the materials that are presented, and often those 10 are also kind of the course outline. There's a list 11 of training modules that cover the different systems 12 that need to be covered. If it were a hydraulics --13 14 dual hydraulics change, for instance, then the dual 15 hydraulics differences training materials 16 presentation module would be adjusted. Then it 17 would be addressed as well in the ground pre-flight discussion, cockpit discussion. 18

Q Is the differences training, is that something that pilots receive one time?

A Yes.

0 Okav.

A And then during their recurrent training, we make a point to address some aspect of each of the differences training. It's kind of unusual for

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1 a pilot to have all five variants in the company. 2 Typically, it's two or three. And so we discuss with them what they're flying on a regular basis, what 3 their relief aircraft is, and if there are other 4 times they may fly another variant. 5 And like, for instance, with Pat, I focused on -- and I remember 6 7 because I do the same thing when I -- before we got the dual hydraulics training aircraft. I would take 8 a little extra time during the pre-flight while the 9 cowls are up to talk about, you know, if you look at 10 11 this, how can you tell if this is a single or dual Well, it only has one pump, it must be 12 hydraulics? Where would the other one be? And then 13 a single. I'd go into determining his depth of understanding, 14 15 and we'd talk about the differences if System 1 or System 2 would fail, I want to make sure that they 16 17 had a good understanding of the systems' operations. Are changes to training, does that need 18 0 to go through the FAA also, or is that just an 19 internal --20 Now, if there's a 21 Α That's internal.

change to the pilot training program which has all the tasks broken down with the standards and so forth, that goes through the FAA. But in terms of a run-up procedure, that -- or the individual

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44 1 emergency procedures, as they relate to the 2 different variants, those are just done pretty much in-house. 3 4 0 In any of your interactions with Pat, did 5 he ever mention any concerns that he had flying any of the different helicopters or working for Air 6 7 Methods? 8 Α No. How were you notified of the accident? 9 Ο 10 Chief Pilot Raj Helweg phoned me in the Α 11 middle of the night. The phone rang, and I didn't 12 know right away that it was Pat. It just made me aware that we'd had a fatal accident, and more 13 14 information would be following. And I don't 15 remember, but I received a phone call middle of the next day that informed me that it was Pat. 16 And I know you said that you weren't 17 0 involved in the accident investigation itself. But 18 did you do anything once you were notified? 19 I watched the news, and I contacted the 20 Α ACEs for the AStar and made sure that each of them 21 22 knew -- actually, I think I had everybody notified of the accident before I knew specifically that Pat 23 was involved or who was involved, and that was via 24 25 And then those ACEs that I knew that had telephone.

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45 1 a relationship with Pat, being kind of a Colorado person, and involved with indoc training, I called 2 them back and said, hey, it was our friend Pat. 3 4 0 What is your coordination with the safety 5 department? Well, I mentioned they worked directly 6 Α 7 with us on checklist -- recent checklist improvement They come out and do site inspections. 8 process. They participate by briefing initial new-hire 9 10 classes on our safety programs. I'm -- for the ASAP 11 event review committee, I am Raj's alternate, and he travels a lot, so I'm often in those committees. 12 So I work with the ASAP manager, who's currently our 13 14 interim director of safety, very closely on reviewing the submitted events, and working out 15 improvements, and finding -- gather information if 16 17 we're not clear from the report what happened, and I work with the FAA, the pilots' rep from the union, 18 and then the safety department on each event that's 19 reported to ensure that we follow up and provide 20 21 training or quidance or recommendation for whatever needs to be done based on each of those reports. 22 Does the safety department provide any 23 0 sort of quarterly briefings on trends that they're 24

seeing and the data or something that may be of

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46 1 interest to the training department, something that 2 may want to be focused on in training? We have a safety publication that has 3 Α 4 articles. I don't remember the frequency. Seems like it's more often than quarterly, and I receive 5 those via e-mail, and we print them up and leave 6 7 them around for people to pick up and read. And if there's something that's specifically applicable to 8 what we're doing in training, then I'll make sure 9 the ACEs say, "Look, they're talking about what you 10 11 did, and that's good." Otherwise, it's a phone call 12 and a discussion. We have other safety programs that generate interaction between the training 13 14 department and the safety department, like the FOQA Are you familiar with FOQA? 15 program. 16 Ο Yes. 17 So if we have -- for me, if we have a Α training event where there's an exceedance, like 18 rotor overspeed or -- you know, we had a 19 precautionary landing because of a systems 20 21 malfunction that wasn't caused by a pilot. In any 22 event, if there's a question as to why that

happened, sometimes even if there isn't, I'll meet with the FOQA rep, which is also Jeff Currans, the human factors expert, and we'll initially discuss

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1 what he sees on there. And then if it's appropriate -- and it's been maybe twice in the last year then, 2 you know, I'll sit down and review the video or 3 listen to the audio and learn the details about, 4 well, when did the crew become aware that they'd had 5 an overspeed, or how did they handle it when the 6 7 stress levels spiked in the cockpit because they had an overspeed. And it's nice. Often I get to go 8 talk to my check airmen and say, "Heck of a job. 9 Kept your cool and kept some from what could have 10 11 been developing into a really bad situation under And we can fix the helicopter, 12 control and safe. but you did a good job of keeping your head and not 13 14 having an accident." So that's another 2 program. 15 Those are the things that come to mind. Thank you, Bill. I think I'm done 16 0 Okav. 17 with my questions for now. We'll give each person 18 here at the table the chance to ask any follow-up or clarifying questions. 19 Do you need a break, or are you doing okay? 20 21 Α I'm doing fine. Thanks for asking. Jennifer? BY DR. RODI: 22 DR. WILSON: Thank you for your time today. 23 0 I'm hoping that you can elaborate a little bit as to 24 25 what is covered during the training regarding

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weather information dissemination that a pilot should, or is required to review per company procedures and policies, and how they obtain that information.

That's addressed several times 5 А Sure. during the pilot's training. It's addressed during 6 7 indoc in the ground school courses, you know, here are the authorized sources. You know, National 8 Weather Service is authorized. You can use other 9 10 local resources, but you must also hit the required 11 We'd make sure that that's emphasized so they ones. know where they can get official approved 12 information for weather planning. 13

We talk about the options they have if they're in a -- to get to their base and they don't have access directly to the National Weather Service for some reason, you know, what they can do to make an observation. They can contact OCC and have them look at weather systems. You know, what are all the resources. We talk about that at length in ground and indoc.

And then when we do the aircraft qualification, their initial qual, part of each flight's pre-flight planning is to then go reinforce those lessons learned in that ground training. What

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1 sources can we use, how do we access those online, via telephone, confirmation by the pilot at the 2 scene where they're going to be flying. 3 Our case is a little different in training than a base. 4 Base typically goes from Point A to Point B, and they 5 need to look out down the road. We're typically in 6 7 the local pattern, so we get a realtime check by doing an observation, listening to the airport where 8 we're training recorded weather. All those things 9 are taken into account. Look at forecasts and 10 11 trends, and we emphasize, just because we're helicopters, paying attention to temperature and dew 12 point, and the likelihood for fog development. 13 So 14 then that's readdressed in recurrent training for 15 the same -- in the same way during pre-flight for each training flight, and then during the 16 17 evaluation. Also during the evaluation, we'll kind of

18 incorporate weather and performance planning, and 19 how our pilots need to be aware of going from, say, 20 low to high altitude, and how there may be some 21 22 limitations to weather reports, and things to be looking for during the flight. 23 It might be an indicator that it's time to turn back before it gets 24 25 really bad.

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1 And then a very direct training presentation in the cockpit during training, I think 2 most of the ACEs do what I do. 3 I say, "What are some indicators that the weather is deteriorating 4 that you can be aware of that will be a flag, a 5 signal to you?" Pilots in helicopters are going to 6 7 go lower and slower and lower and slower. And if you find yourself doing that, make a point to 8 evaluate what's going on. If the trend's in the 9 wrong direction, I'm correlating that to what you 10 11 had for forecasts, make a decision. Turn back, land where you are if you need to. And then typically 12 from that, we go into inadvertent IMC recovery 13 14 procedures.

Q Can you describe what training is provided during initial and then recurrent regarding the risk assessment process and when a pilot would do that during normal procedures?

The form and the intent and the theory, 19 Α which is -- are you familiar with the form, under 20 what all the items are on the risk assessment form? 21 22 This is during ground and indoc. But understand that the point is to identify risks and then 23 mitigate them and make adjustments to your plan; 24 25 delay, go a different route, decline based on the

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1 risk assessment items. If you can -- if you look at 2 them and you say these are some things that will keep me from going, we want the pilot to identify 3 ways they can mitigate that by making changes. 4 Ιf they can't mitigate it to a safe level, and we make 5 a point that while they need to comply with FAR and 6 7 GOM and weather requirements, they also can have their own standards that are more conservative. And 8 we really encourage that with the new pilots. So 9 that's highlighted during the risk assessment 10 11 process and their initial ground training. And then again, when you go out to fly with them, now we use 12 the practical application of the training that was 13 used in the ground school in completing the form, 14 15 and thinking about all the different things on the risk assessment, and then signing it, and making 16 sure that that's included with the documentation, 17 and it's completed prior to flying. 18 What training is provided to both the 19 0 pilot and the medical crew regarding any sterile 20 21 cockpit procedures and how they might vary during an 22 emergency that's declared, or a perceived emergency? Well, in ground school, for both medical 23 Α

and pilots, we talk about what sterile cockpit is and when it's expected, and that -- excuse me, which

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is in any critical phase of flight, it's announced so that everybody understands what it is, and they don't get their feelings hurt, and it doesn't become a barrier to communication because they feel like you're being told to shut up. No, that's not what this is. This is a tool. And I think we get a good understanding between the crews that that's the case.

Also, pilots know that if they need to 9 10 focus with an emergency procedure at hand, they can call sterile cockpit, please, and the medical crew 11 understands that they need to be quiet and allow a 12 pilot to work on whatever it is they're doing. 13 14 Typically then, the pilot will also say, "Okay, 15 sterile cockpit's no longer in effect, " when whatever reason they were implementing it is over. 16 17 So it's covered in ground school, and it's included 18 in checklists, and it's discussed during flight training, all the different phases of flight 19 training, with the pilots. 20

Q You spoke a little bit about the check flight that's conducted with each pilot on an annual basis. What are the required maneuvers that you spoke of?

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There's a fairly significant list, and I

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don't know that I can sit here and spew them all out. I would use the evaluation form to ensure that I met all of those. But it's normal takeoffs and landings, steep approaches, shallow approaches, emergency procedures inadvertent IMC, recognition and recovery from settling with power, power off all the rotations, slope landings, confined areas. There's probably three more of those kinds of maneuvers. Does that answer your question?

Q Thank you. Changing direction a little bit. Regarding the safety department, and then concerns that you might, as the assistant chief pilot and director of training have, how would you communicate a concern with management or the safety department about an operation, a checklist, or a particular airframe, or just a particular pilot that you might have?

Α As an example, if there's a procedure 18 that is brought to me that may have an issue within 19 it, or something we need to look at and maybe think 20 about changing, unless it's a realtime critical 21 issue, that's typically reviewed in a meeting, a 22 weekly meeting with the chief pilot and the other 23 assistant chiefs, and we discuss it. And at that 24 25 point we'll determine, let's ask for some support

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1 from the safety department for a risk assessment, or 2 an analysis of that process from the safety point of 3 view. And then, depending on what it is, we'll 4 work with them to set up -- they tell us what they 5 think they ought to be looking at to develop a 6 7 solution or suggestions for changes, and then they physically go to the location, or we sit down with 8 -- if it's a checklist, like I did with Jeff 9 Currans, and review it and have a discussion and 10 11 draft changes. So there's that. 12 When we get -- we recently had a new fuel testing training process that the safety 13 14 department developed, and that was -- they contacted me and said, "Hey, this is coming out. It will be on 15 the computer-based training site, and we're putting 16 17 it into all the pilots' training requirements, so let people know." That's another interaction with 18 the safety department. 19 Describe your perception of the 20 0 receptiveness, if you will, of management, your 21 supervisors, senior leaders within the company, if 22 there's any disagreement as part of -- with regards 23 to something that you perceive as might be a safety 24 25 issue.

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1 Α I have a very good working relationship 2 and rapport with my direct supervisor, the chief 3 pilot. I have that same rapport in an unofficial 4 level with the director of ops. I can discuss with I also have good support from my 5 them one on one. fellow assistant chief pilots, and I have impromptu 6 7 meetings with them to discuss issues to help me develop the best solution, or some alternatives to 8 things that come up. And then we meet with the 9 chief pilot and discuss them, and they're always 10 11 well received. What I typically get from the chief 12 pilot or the director of ops is the benefit of them having been involved and maybe seeing the issue 13 14 before. And so there's good two-way communication, and I feel very supported in that way. 15 So one more direction change. 16 Can vou 17 describe your interaction with the FAA and then your

relationship with the FAA?

And locally, the FSDO inspectors 19 Α I can. and just coincidentally, those that are assigned 20 as the individual that's our POI, are folks that I 21 22 served with in the military, just coincidentally. And again, fortunately, we had good relationships 23 from the beginning, a mutual respect for 24 25 professionalism, and an understanding of what their

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1	values and concerns are individually. That's an
2	unusually good situation for me, and a good rapport
3	and ability to communicate.
4	The FAA is a resource for me generally,
5	in terms of the organization. And they're someone
6	that, in many respects, I treat as my customer, and
7	we partner in ensuring that the processes and
8	procedures that we put in place get the appropriate
9	legal review, and so we end up with the best product
10	that's prudent, safe, and compliant, particularly in
11	the compliant portion of that. But I do get support
12	from them in the other aspects of things that we
13	work on. I do believe there's a sincere interest in
14	the safest operation that we can put in place.
15	DR. RODI: I think that's all I have.
16	Thank you.
17	DR. WILSON: Chihoon? BY MR. SHIN:
18	Q You mentioned earlier that you don't
19	practice a loss-of-control scenario with your
20	pilots, and then later mentioned that you like, as a
21	best practice, to confirm controllability of the
22	helicopter as you're taking off. Is this something
23	that is taught to your pilots as a best practice, or
24	a standardized takeoff in confirming controllability
25	of the helicopter as you're taking off?
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Α There is a -- as we break down the different maneuvers that make up a flight, a power check, to include aircraft controllability is done each time you take off. And that is particularly emphasized in maintenance check flights. But in training, it's a routine practice. It's discussed, And that power check, when you it's performed. first come into a hover, is part of the stated requirements in many of the takeoff maneuvers. So does that answer your question? 0 Yes. Switching gears a little bit, do

you have any concerns with the level of complexity in understanding the pre-takeoff hydraulics checks in the AS350 models?

15 I am concerned, but not overly concerned. Α I will tell you that it has my full attention, for 16 17 It's something that can be a obvious reasons. critical phase of our operations. And as a training 18 manager, assistant chief, it has my full attention 19 and concern to ensure that we're disseminating a 20 21 clear understanding during training, and as changes 22 to those procedures occur with our pilots in the field. 23

Q Okay. Do you feel that at this time training is sufficient for those systems?

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58 1 Α Yes. But when I leave today, we'll be 2 making the latest change to the RFMs per a safety bulletin we received yesterday. 3 So it's an ongoing evolution. And because it is a critical area, I'm 4 paying particular attention to it now. 5 And prior to the accident, have your 6 0 7 pilots expressed any concern to you about the complexities of the hydraulics checks, either in 8 single or dual, or going between the two systems? 9 10 I would say no. I didn't hear anything Α 11 related to that, no. And after the accident? 12 0 I mean, there's awareness, and so 13 Α Yes. 14 we want to make sure that there's no question in our 15 mind when the pilot finishes training and completes an evaluation that they clearly understand what 16 17 needs to be done. Okav. And then the differences training 18 0 that the pilot receives when he or she goes from a 19 single hydraulic to a dual hydraulic AStar, is this 20 21 tracked in the pilot's training records? 22 Α Yes. That's all I have for now. MR. SHIN: 23 24 Thank you. Seth? BY MR. BUTTNER: 25 DR. WILSON:

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1	Q Sure. Just a couple of clarifications.
2	I think you mentioned you could you say when you
3	received that service information notice?
4	A This particular one?
5	Q Yes.
6	A Well, our system disseminates this
7	information. I would have received it probably
8	within a week of the probably the end of August
9	of 2014, when I was working as ACE's centralized
10	training, check airman at centralized training. To
11	be honest, I don't know exactly when. I just know
12	that that's typical of how they come in and are
13	received.
14	Q When did you start you said you
15	disseminated it I think you started sending these
16	out to the pilots?
17	A "These" being which? When this came out,
18	that was not part of my area of responsibility. I
19	was a check airman at the training facility at Front
20	Range Airport here in town. And this was
21	disseminated to me and discussed amongst the check
22	airmen, the lead check airman, and then the trainees
23	when they came in. And then after I became the
24	training manager and assistant chief, then my role
25	changed.
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1	Q That was earlier this year?
2	A Actually, I was aviation training manager
3	starting in January, tail end of December last year,
4	but effectively the 1st of January of this year.
5	And then at that time, I stepped away from managing
6	the AStar training. I had a different area of
7	responsibility due to the person I was replacing.
8	Six months later, the 1st of June, in discussion
9	with my peers, they said, "Well, since you're a
10	check airman in the AStar, why don't we change
11	aircraft responsibilities," and I took over the
12	training manager and assistant chief pilot
13	responsibilities as of the 1st of June. That took
14	place for the airframe where I was previously a
15	check airman.
16	Q Okay.
17	A And at that point then, I'm the person
18	that's making sure this gets out to trainers,
19	pilots, manager in the field.
20	Q So that's when you would have
21	disseminated that one?
22	A No. This was disseminated before I was
23	in that role. And then the following service
24	bulletins came when I was in the role of training
25	manager assistant chief pilot.
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1	Q Okay. Two more questions. So when did
2	you fly with the pilot Pat, and what aircraft was
3	that in?
4	A I flew March third week in March of
5	this year, if I'm remembering right, and I have
6	to go look. It was most likely an AS350 B3/2B1. It
7	may have been a B3/2B or B2, if that's not
8	confusing.
9	Q Okay. But it wasn't but you're not
10	checked out, you said, in the B3?
11	A I'm not. But I have a year prior,
12	while I was training to become a check airman in
13	AStar, I did get dual hydraulic differences
14	training.
15	Q And the last question I have is, are you
16	familiar with TIPI?
17	A I know of it. I have not been
18	interfacing with them.
19	Q When did you become familiar with them?
20	A I don't know. I've been aware of it
21	since I'm guessing this past summer.
22	Q So do you access do you have access to
23	it, or
24	A I don't access it as a matter of routine.
25	Unless TIPI is something that had a different name
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1 previously, I access the manuals through the website, and I can't think of the name of it now. 2 But I have a password, log on and password so I can 3 access RFMs, for example, on Airbus's website. 4 And have you ever contacted Airbus for 5 0 technical queries or support yourself? 6 7 Um-hum. Α And in what roles, or how often? 8 0 Well, after I was signed off as a check 9 Α airman, and I was subsequently signed off as a 10 11 maintenance check pilot/check airman for restricted operations checks, check airman, and as I was in 12 training for that and I had systems questions, 13 14 contact our local tech rep. If I knew he was coming 15 out to work on aircraft, say they were pulling the 16 engine and changing a module in the hangar, I'd make 17 a point to go by and visit with him and ask about 18 components to become familiar. And then I called you earlier this week. That was a first. 19 The local tech rep had a message that he would be unavailable 20 and to call Romadon, and he then referred me to 21 22 visiting with you. Prior to that, it just -- I attended a UC130 T2 ground down at Grand Prairie at 23 Airbus, and I met some people that were pilots, and 24 25 maintenance pilots, instructor pilots that we had

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1	common friends from the industry, and I probably
2	have talked to Greg Pope since then a couple of
3	times just because I had contact information. I
4	knew he was a good subject matter expert, typically
5	for training-related questions.
6	Q How many hours did you say you had in the
7	AStar?
8	A I didn't, but I think I've got about 80
9	in the AStar.
10	Q Most of that was since you've been here,
11	or
12	A Well, all of it's since I've joined the
13	company. I flew the only thing that had similar
14	systems with the French engineering background was
15	the Dolphin that I flew in the Coast Guard for 1,907
16	hours. A lot of similar hydraulics system
17	components, by the way.
18	DR. WILSON: Ed? BY MR. STANDY:
19	Q Okay, Bill. Are you aware of any
20	training specifically done by Patrick in the B3e
21	aircraft when it came online?
22	A Yeah. Glen Uchiama, the lead ACE, did
23	differences training in the B3e with Patrick, I
24	think it's August of 2014, and then Patrick flew it
25	regularly at the base until the time of the
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Did that training include both ground and 2 0 flight, or was it -- do you know, or are you aware? 3 You know, I don't know because I have not 4 Α been through that training, and that was developed 5 by Glen Uchiama at a time when I was not the 6 7 training manager for that. I imagine that it does include ground and flight because of the navigation 8 system changes. But dual hydraulics training is 9 ground training, and then a ground run. 10 It's a review of the run-up and shut-down procedure and 11 It does not include flight. 12 checks. So I know Patrick went through that in 2012, but then did not 13 fly that aircraft much before he got B3e training, 14 15 and subsequently flew it as a matter of routine. Okav. Besides check airmen, is there 16 0 17 anybody else that's qualified to conduct differences 18 training within the company, or is that only a check airman duty? 19 Training captains. 20 Α There's no -- there's integrated checks on learning and confirming that 21 the material that's trained is learned. 22 There's not a function that the FAA would have a check airman 23 24 The training captains who have the appropriate do. 25 qualifications and knowledge of the systems can do

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those differences training.

Q And what would those qualifications be for a training captain? How efficient, and how often do they perform these, and what kind of training do they go through?

Well, they're selected based on their 6 Α 7 aptitude, you know, knowledge and experience, and interest in motivation, and then they're hired into 8 the ACE position as a training captain, and they 9 kind of are dual tracked towards becoming a ground 10 11 instructor and a flight instructor and training captain level, and then eventually to check airman. 12 But the training includes flying with the lead ACE, 13 14 participating in ground instruction, monitoring, and 15 then -- initially, and then participating teaching some of the modules with the lead ACE present, with 16 17 coaching and corrections provided to the training 18 captain trainee who's doing the presentation, and the trainees who are present to make sure that it's 19 a good quality training. Eventually then, the lead 20 21 ACE will sign a training form that says, "I recommend this pilot for ground training captain." 22 And then the same thing is done with 23 flight training. You fly with the lead ACE, and 24 25 sometimes his designee. He may say, "I authorize

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1 one of the other more senior ACEs to fly with this 2 training captain," and practice and learn the different aspects of each maneuver that can be 3 4 dangerous or particularly critical, and how to avoid and recover from those, and techniques for 5 communicating in the cockpit, identifying if the 6 7 student's struggling or doing well, and so you can set the pace. All those things are learned flying 8 with the lead ACE. Training forms are completed for 9 10 each flight, and then eventually the lead ACE says I 11 recommend this person for flight training captain. They operate in that role for a while, build 12 And then when the lead ACE has a chance 13 experience. 14 to come back and check on him, he then recommends 15 him for a check with the FAA to basically represent the FAA as a check airman. 16 Long answer to a short 17 question. Forgive me. Does that answer what you were wanting? 18

Q Yeah. Just one clarification on that. So is there training captains that do not move on and become check airmen? Do we have line pilots that serve as a dual function both training captain and line pilots?

A The line pilots are pretty rare but sometimes are more experienced aviators that have

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become like a regional manager or a program manager, will go through the ground instruction instructor course, and then go through the ground instruction portion of the process I just talked to you about with the lead ACE. Less often they'll go through the flight portion and be signed off as a training captain, and then they'll supplement the full-time check airman. And they typically don't, but there's no hard and fast rule to get signed off as a check airman.

Q Do you have any sense of how many training captains we have that fit that description of manager/training captain that are conducting differences training in the field, as opposed to our guys going in with a check airman?

A The numbers of individuals in those different roles?

Q Yeah. How frequently does it occur that a line pilot gets differences training from --

A His manager?

21 Q -- his manager, as opposed to a check 22 airman?

A That occurs fairly regularly if a different airframe comes to a base that requires differences training, and that manager is gualified.

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In the case of Pat, I think his initial dual hydraulics training was done by a training captain, Rod Ballock, in -- you know, if they had that aircraft for a short period of time, then Rod went through all the training materials and the run-up process and the checklist with all the base pilots prior to putting that in service with that dual hydraulics, AS350 B2/B1. When the B3 was new to the company and differences training was done with Pat and the other pilots, it was done by the lead ACE.

Q And then my final question is, are line pilots ever included in any focus groups or sought for input when policies and procedures are being considered and implemented such as, you know, with the checklist or stuff like that? Do you ever involve a line pilot in that process?

17 Α Through the process of pushing it out to 18 the ACEs in the fields, or the lead ACE, who is also out in the field, or at the training center doing 19 training, they gather input. And the guidance from 20 me is real general in nature. It's run this past the 21 22 pilots that are experienced and have been flying this thing for a long time and get their feedback. 23 It doesn't happen as formally and often as other 24 25 areas where line pilots are involved in identifying

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69 1 safety or process issues, like with the ASAP 2 program. 3 Q Sure. And then by exception, things may come up 4 Α where the assistant chiefs, either on the guidance 5 of the chief, or through consensus in addressing an 6 7 issue -- I can't think of an example now, but I know a couple of times since I've been in this role, we 8 just reached out to some line pilots. 9 We knew that they knew the aircraft very well, knew the area of 10 11 operation well, and differed from another person in that same capacity when you ask how will this work 12 for you, and how will this work for you? 13 They 14 weren't brought together in a formalized team 15 effort. But there is an outreach for input on occasion. 16 Thank you. 17MR. STANDY: I appreciate it. DR. WILSON: Does anyone have any 18 follow-ups? 19 I have a couple. BY MR. SHIN: 20 MR. SHIN: 21 0 Just a couple acronym clarifications. ACE? 22 Aviation compliance evaluator. 23 Α And when I say "ACE," that's a bad habit, but that's an 24 25 aviation compliance evaluator or ACE.

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1	Q And ASAP?
2	A The Aviation Safety Awareness Program.
3	That is a program where if a pilot makes a mistake,
4	or has an incident that he wants to make sure, or an
5	event, that he may or may not have been
б	noncompliant, but there's a lesson to be learned.
7	He can self-report, or he can report awareness of a
8	problem through the ASAP program, and then that's
9	managed by the ASAP rep in the safety department,
10	and monthly the a review ERC review committee
11	gets together and reviews those to make sure that
12	there wasn't willful disregard to either our
13	corporate policies and rules or regulations, and
14	that there was no alcohol or drugs involved and
15	those kinds of things. Or we can also tell that
16	even if it's an unintentional thing, say this
17	individual's losing the capacity to do what he needs
18	to do, we can look at the past record and see if he
19	has a track record of this, and then we figure out
20	how can we make this a safer situation. It covers a
21	broad range of issues, but it's a self-reporting
22	system that allows us to capture safety lessons that
23	would otherwise go unlearned. I think it's a really
24	good program.
25	Q And you had mentioned earlier that there

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1	are five different variants of the AS350 model that
2	you fly at Air Methods. Is there a base variant
3	from which differences are taught?
4	A Well, officially, it's from the aircraft
5	that you did your initial qualification in. But
6	most typically, it's a B2 or a B3/2B1, just because
7	of the number of aircraft and where the bases are
8	that have that aircraft. Those are typically the
9	bases from which differences training is done.
10	Q And are the differences when you do
11	the differences training, is that essentially one
12	module for all the differences in that variant, or
13	is it specific modules for systems such as single
14	versus dual hydraulics, one engine model versus
15	another engine model?
16	A In the pilot training program, we have a
17	matrix, and it says this guy's qualified in this,
18	and this is what he needs to be differences trained
19	in. Then you go down, and there is a list of ground
20	training modules that need to be addressed, the
21	flight modules. If flight is needed for the
22	differences training, you know, that would be
23	systems and procedures; i.e., checklists and RFM
24	supplements are identified in those pilot training
25	programs, that matrix for differences training. The
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1	B3e was the sixth variant to be cleared, and we had
2	one, and we don't have one anymore. So we are back
3	to five variants. The most recent change to that
4	matrix was to add the B3e to the differences
5	training matrix.
6	MR. SHIN: That's it for me. BY DR.
7	WILSON:
8	Q I have one final question to help
9	clarify. You've mentioned a lot of things. ACE,
10	training captains, check airmen. Can you give a
11	brief description of what each of them does? They
12	probably differ.
13	A Sure. I can share that kind of in a
14	hierarchy too. I mean, I talk about the training
15	process and how you eventually end up as an ACE or a
16	check airman. ACE is a job position for our
17	company. Check airman is an authorization
18	qualification provided by the FAA. So if a person's
19	hired in the ACE position, initially they are a
20	training captain, but they haven't been checked by
21	the FAA, and they're building their skills to become
22	an effective trainer, and then internally they are
23	authorized by letter from the chief pilot to
24	function as a training captain at that point. They
25	can provide training on their own without assistance
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1	from a more senior check airman, and they can do
2	documentation for training.
3	And then as they continue to build
4	experience, then they're checked, and they can apply
5	to our lead ACEs, and recommended to be put up for a
6	check with FAA, after which then they become a check
7	airman. And they can do all the same training, but
8	they can also do evaluations and document those to
9	the standards that the FAA provides.
10	Sometimes a training captain is limited
11	to just ground training. I'm not aware of anybody
12	that's a flight training only. Typically, the flight
13	training is sort of the next level above the ground
14	trainer. You're now taking the theory and knowledge
15	presented in a classroom and putting it into
16	practical application during training.
17	And then a lead ACE is someone who's
18	demonstrated that they were a good training captain,
19	a good check airman, and have built some additional
20	knowledge and experience, and have the aptitude to
21	be the subject matter expert that I go to when I
22	have questions about training or systems knowledge.
23	That's a lead ACE, and there's one per airframe.
24	Q Okay. Anything else that you'd like to
25	share with us that you think might help with the

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74 investigation? 1 I've thought the questioning was 2 Α No. fairly thorough. I hope I've been thorough in my 3 4 answers. 5 Thank you very much. 0 Yes. It was very And on behalf of the NTSB, let me extend helpful. 6 our condolences for losing a colleague and a friend. 7 Α Thank you. I appreciate the work you-all 8 do to partner in taking care and making this a 9 better industry. Thanks. 10 And I have my card, and also Dr. Rodi's 11 0 So if any questions come up, please don't 12 card. hesitate to contact us, and we'll be happy to answer 13 14 anything that we can. DR. WILSON: Off the record. 15 (The interview concluded at 9:02 a.m. on 16 17 October 23, 2015.) 18 19 20 21 22 23 24 25

## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of William Harper

DATE: 10-23-15

I hereby certify that the attached transcription of page 1 to 75 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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## NATIONAL TRANSPORTATION SAFETY BOARD

	*	
INVESTIGATIVE INTERVIEW	*	Docket No.:
RE FRISCO, COLORADO	*	CEN15MA290-91489
ACCIDENT THAT OCCURRED ON	*	
JULY 3, 2015	*	
	-	

INTERVIEW OF: DENNIS McCALL

Friday, October 23, 2015

9:11 a.m.

Air Methods 7211 South Peoria Street Englewood, Colorado 80112 From the NTSB:

KATHERINE A. WILSON, Ph.D. JENNIFER S. RODI, Ph.D. CHIHOON SHIN

From the FAA:

MATTHEW RIGSBY

From Airbus:

SETH D. BUTTNER ED STENBY

Representing Air Methods:

COREY J. WRIGHT, ESQ.

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1	PROCEEDINGS
2	DR. RODI: So we'd like to start out by
3	clarifying that the reason why we're here and the
4	purpose of these interviews is solely for safety.
5	We're not interested in blame, liability, or finding
6	fault during any of these interviews. This
7	interview is a furtherance of the investigation that
8	we're conducting into the Frisco, Colorado accident
9	that happened on July 3 of 2015, this year.
10	You've met everybody in the room, I
11	assume. Do I need to go through and introduce
12	everybody again, make sure
13	MR. McCALL: No, ma'am, I remember them
14	all.
15	DR. RODI: Okay, excellent. So everybody
16	in this room is either an employee of NTSB or a
17	party to the NTSB investigation process, or a
18	technical,liaison through the accredited
19	representative process. Do you have any questions
20	with regards to that.
21	MR. McCALL: I do not.
22	DR. RODI: Okay. They are allowed
23	participation during the course of our investigation
24	to help ensure a thorough and proper investigation.
25	They're allowed to participate in the interviews to
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1	make sure that every aspect that is important or of
2	concern is covered or addressed during the
3	interviews with regards to that?
4	MR. McCALL: That sounds good.
5	DR. RODI: Okay. We cannot guarantee
6	confidentiality or immunity as a result of this
7	conversation or this interview. A transcript of
8	this interview will be included in our public
9	docket, and you are entitled to one representative
10	who has been solicited.
11	And as we briefed earlier, you cannot
12	testify or answer questions on his behalf.
13	MR. WRIGHT: I understand.
14	DR. RODI: Do you understand the
15	investigation process during the course of an NTSB
16	investigation?
17	MR. McCALL: I do understand it.
18	DR. RODI: So we're in the business of
19	gathering facts and circumstances surrounding an
20	accident, and then preventing possible future
21	accidents from happening by identifying factual or
22	potential safety issues that come up during the
23	course of the investigation. When you answer.
24	recollection. If you need to make a change to
25	something, if you need to modify something, if you
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1	want to go back to something, feel free to do so
2	while we're sitting here chatting.
3	A Okay.
4	Q And you have our contact information. So
5	if you have any questions or anything that you want
6	to follow up on afterwards, feel free to do so.
7	A Thank you for that.
8	Q All right. Are you ready?
9	A I'm ready.
10	Q Excellent. We'll let Dr. Wilson start
11	with the questioning, as she'll lead the majority of
12	the interviews, and the rest of us will follow up
13	should we need anything clarified or ask additional
14	further questions, and then we'll be finished.
15	A Thank you.
16	BY DR. WILSON:
17	Q May I call you Dennis?
18	A Yes, you may.
19	Q Katherine, please.
20	A Okay, Katherine.
21	Q Our condolences for the loss of one of
22	your colleagues. We appreciate you taking the time
23	to participate in this process.
24	A Thank you.
25	Q If you could state for the record your
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1	full name, please.
2	A Dennis Ralph McCall.
3	Q And your position at Air Methods?
4	A Director of operations.
5	Q And how long have you been in that
6	position?
7	A Two years.
8	Q And what position did you hold before
9	that?
10	A I was the chief pilot.
11	Q Can you give me a quick summary of the
12	positions you've held and when you held them at Air
13	Methods?
14	A Yes. In 2003, I was hired as a line
15	pilot in Mojave, California. I became the lead
16	pilot at that base, which is the next progression up
17	if a pilot wants to move up in management. From
18	there, I became an instructor and a check airman for
19	the company, and then the program position in
20	Denver. I moved from California to Denver as the
21	aviation compliance manager. My job then was to
22	build what we didn't have, which was an operational
23	control center. So that was my first task, and to
24	make sure that we were compliant with some of the
25	concerns that the FAA had raised about operational
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1	control.
2	I did that position for a few years and
3	became chief pilot. Natural progression from there
4	is director of operations, and here I sit today.
5	Q Great. And prior to coming to Air
6	Methods, a brief aviation background?
7	A I flew private training for about four
8	years. I don't want to guess at the times. It was
9	about four years. And prior to that I was law
10	enforcement. I flew law enforcement in California.
11	Q And what are your duties and
12	responsibilities as the director of operations?
13	A My responsibilities and authorities are
14	to direct all flight operations and ensure that they
15	are done in a safe and compliant manner, and that
16	safety is front of mind.
17	A Mark Allen, the president of the company.
18	Q And what is your total time?
19	A A little over 14,000 hours.
20	Q Is that all rotocraft?
21	A Yes.
22	Q And can you estimate about how many hours
23	you have with EMS?
24	A It's thousands. Let's just say 2,000
25	hours.

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1	Q Okay. Do you still fly with the company?
2	A No.
3	Q What aircraft or rotocraft are you
4	qualified to fly on?
5	A The Bell 412, the Bell 222.
6	Q How many pilots does Air Methods employ?
7	A Approximately 1200.
8	Q What are the qualifications that you look
9	for when hiring pilots?
10	A Well, qualification so there's the
11	static requirements, the 2,000 total time, 1,500
12	hours in time , and the cross country of my head,
13	but we have cross country requirements, we have
14	night requirements, and obviously experience
15	requirements. But what we're looking for in pilots
16	is, we're looking for a frontline risk manager, is
17	what we tell them, and we try to hire along those
18	lines.
19	Q Do you visit the various bases?
20	A I do.
21	Q How often do you do that?
22	A As often as I can. I know that's a poor
23	answer. But, for example, I was just out last week
24	at bases. I try to go out at least every other week
25	to the bases. We have a little over 300 locations.

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9 1 So it's not easy to get to them all, but when I can, I try to attend when they have large group pilot 2 3 meetings and those types of things so I can get the 4 most bang for the buck. 5 0 All right. And your most recent visit to a base, what's a typical visit to a base look like? 6 7 Well, when you go onto the base -- and Α I'll describe that from one of the most recent ones 8 I did in Idaho where they had a program crew. 9 And we get a conference room at a hotel and bring 10 11 everybody in, myself, the director of maintenance, 12 and a safety person, and allow the pilots and med crews to give us their ideas, concerns, and it's a 13 14 general free exchange of information. Have you been to the Frisco base? 15 0 16 Α Yes. Recently? 17 Q I did, but that was a result of the 18 Α accident. 19 How many types of aircraft does Air 20 0 21 Methods own, fly? That number changes almost on a daily Α 22 basis, but roughly we have 23 variants of aircraft. 23 Q I don't want to guiz you necessarily on 24 all the different types of makes and models. But 25

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1	would that be something that we could get a list of?
2	A Absolutely. I can provide that.
3	Q Do you know roughly single versus dual
4	hydraulic helicopters?
5	A I believe we're about 18 on the 18
6	that. I can get that to you.
7	Q Do you know how long Air Methods has been
8	operating the AS350 B3e?
9	A I don't know the exact start date of when
10	they did, but it's been for the last year or so,
11	last year and a half.
12	Q And do you know how many of that
13	particular helicopter you have?
14	A We had a couple. The one that crashed
15	was one of those.
16	Q Are those all at Frisco, or are they
17	A They could be moved at any time, and I
18	know that Frisco had one, and they'll probably be
19	getting another.
20	Q Okay.
21	A The B3e's correct.
22	Q Do you know how many pilots are qualified
23	to fly that particular helicopter?
24	A I do not.
25	Q Describe the safety culture at Air
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Α I believe that there is a safety culture, 2 and what I measure it by is a couple the people that 3 4 are above me, which most are in the corner office with Aaron Todd, our CEO, are very supportive of 5 Money is not the determining factor on 6 safety. 7 things we do, so those are important things and aspects of it. And I think that the free reporting 8 from the field, the nonthreatening type of reports 9 that they put up to us, is good. Like any safety 10 11 culture, I think there's room for improvement. I'd like to see it top of mind with everybody that I 12 talk to in the field. But I think in general that 13 14 we have a good safety culture. Are you involved in safety decisions that 15 Q are made? 16 17 Α I am. Who reports to you? Ο Okay. 18 I have 10 regional aviation directors 19 Α that report to me, and under them there's another 11 20 21 regional aviation managers, and I have a compliance I still have the operational control 22 manager. center under me. 23 Do you have weekly meetings with them, 24 0 monthly meetings, quarterly meetings to discuss any 25

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issues?

Q And what types of things are discussed at those meetings?

4	A So the meeting I'll describe is for the
5	regional aviation directors, the 10 of them. And so
6	they have operational control over their regions.
7	We have 10 regions, 10 of them. And so every Friday
8	I did cancel it today. But the first thing is,
9	we have a safety topic. One person presents a
10	safety topic that was decided the week before, and
11	we share that with the group. The goal is to try to
12	get one topic for all of us to put out instead of
13	having a bunch of different topics. And then we go
14	over any recent updates, changes that occur in the
15	company, and any questions, concerns, that type of
16	thing.
17	Q Have one of those safety topics been dual
18	hydraulic concerns?
19	A We've talked about dual hydraulics.
20	Q Recently?
21	A Yes.
22	Q Since the accident?
23	A Yes.
24	Q What exactly was discussed?
25	A Well, if I could put this in a bigger

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1 explain it. After the accident, one of the things that was mentioned was hydraulics and reminding 2 people about if you're flying single engine --3 4 excuse me, single hydraulic systems to dual hydraulic systems, that you need to be paying 5 attention and understanding all the differences 6 7 And so we put that information out between the two. shortly after the crash on what we call the Pilot 8 9 411 System, so it's a broadcast that goes to every I knew that would raise the conversation 10 pilot. 11 with my regional aviation directors. So we had a 12 call with them and explained to them what was going Didn't make any conclusions of any type, just 13 on. 14 that it's really important to make sure that the pilots out there that have more than one type of 15 aircraft or variant that they fly, that their 16 training is up to speed, that they're comfortable in 17 the aircraft and those type of things. 18 When information is posted on the 411 19 Ο System, how do you know that the pilots read it or 20

received it?

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A There's a -- on some of those messages, and this is one of them, there's a it just tells us you opened the document. It doesn't say that you've read it. But that's one of the controls we use.

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1	Q Did you know Pat, the pilot?
2	A I did.
3	Q In what capacity?
4	A I knew Pat on a professional level. He
5	was a part of the union. And even before he was
6	part of the union, since he was in proximity to the
7	base here where we're sitting, he would come in
8	sometimes, and go up and down the halls, and was
9	known to stop by and just friendly guy, chat with
10	you.
11	Q Did he ever discuss any concerns that he
12	might have had while flying one of the helicopters
13	or any other issues?
14	A No. Last communication I had with Pat
15	was just actually, it was about a week before the
16	accident, and he was coming to tell me that he was
17	moving out of this area and going somewhere else.
18	He'd taken another job in the company and was
19	looking forward to the change of venue.
20	Q What position did he take? equivalent
21	position. He just bid for another base.
22	Q Okay. What base?
23	A I don't know. My memory thinks it's like
24	Wisconsin or somewhere down there.
25	Q Since the accident, have you reviewed any

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15 of his training records or other records, pilot 1 2 records? I took a brief look at them, but normally 3 Α -- we have an emergency response plan, and at the 4 event of an accident, we sequester the records, and 5 they're not kept from me, but they're put in such a 6 7 situation that they can't be changed or modified. Ι simply moved them from myself straight out to the 8 party, to Michael Koens, the same day of the 9 accident, and I did look at them briefly. And the 10 11 last I saw a check ride, he was current and qualified. 12 Nothing that stood out of concern? Okav. 13 0 14 Α No. Did you ever hear anybody complain about 15 0 him as a pilot, flying with him, any safety 16 concerns? 17 What did you hear about him? Ο 18 I heard that he was a very conscientious 19 Α Most people that I talked to, they went out 20 pilot. 21 of their way to say how much they liked Pat. And I know that he was leaving that program and told that 22 was disheartening to those people. 23 They really didn't want to lose him. 24 Q How were you informed about the accident? 25

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1 Α Received a call from our operational The first call that went out went 2 control center. 3 to me, and it was -- at that time all they mentioned 4 was one of the aircraft from Frisco had departed because there was a fire in the area, and later to 5 find out that the fire was them. 6 7 And what did you do once you found out 0 that the aircraft had crashed? 8 Called the regional operations center, 9 Α which is the first thing we do. Well, a lot of 10 11 things go into place. The emergency response plan kicks in, which already triggers mandatory 12 conference calls, meetings, notification trees and 13 14 those type of things. But as far as my data and making sure people are en route to that area to 15 secure the wreckage, and to provide any type of 16 assistance we can. 17 Do you have any involvement in the Ο 18 accident investigation process? 19 20 Α No. 21 What safety programs are in place at Air Ο Methods? 22 The main ones that come in mind to me Α 23 24 are, we have a focus system that we just recently installed, and hoping to get some great information 25

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out of that. We have ASAP, MSAP for the pilots and for the mechanics. We have reporting systems that people can use to either confidentially relay information into us, alert lines. We have the AIDMOR system where they can report any type of issue if they want to us. And we have -- we do the LOSA. Do you know what that is? Do you want me to break these acronyms down?

Q Line Operational Safety Audit?

A Yes. I guess I don't. So we have those. And then we have a network. We're SMS Level 4, and we have a pretty robust safety management system that we practice. reviewing of the FOQA data or ASAP data?

No, not to this point. 15 Α Now, I'll see on the ASAP data, I'm going to pull that one aside 16 because that's a little bit different. If the ASAP 17 committee -- well, the ERC are the ones that review 18 If they think that there's something 19 the ASAPs. that I need to know about, they'll give me generic 20 21 information about it. They just won't say where. And then I can take corrective actions based on the 22 recommendations. 23

Q Who at Air Methods receives safety information notices and service bulletins from the

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1	manufacturer?
2	A Today, our engineering department and
3	myself.
4	Q And how are you made aware of that?
5	A Currently, today, they're sent to me by
6	the engineering department.
7	Q Okay.
8	A I also go on the federal register every
9	day. That's my first stop in the morning, is to see
10	what's in the federal register for proposed rule
11	making. And also, that's where you get your first
12	look at proposed service
13	Q Do you know how the engineering
14	department receives the notices and bulletins?
15	A I do not know their process for receiving
16	them.
17	Q What do you do once you receive a safety
18	information notice?
19	A What I do is, I read them, and I go down
20	to the ones that there's a lot of them for a lot
21	of different type aircraft, and so I disregard the
22	ones for models, makes and models we don't fly, and
23	then I look at the ones we do fly. And if it's an
24	AD or a mandatory service bulletin, I already know
25	those are being taken care of by engineering. The
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1 process that we have in place now is, I'm looking 2 for anything on the nonmandatory type to see what the applicability is, and then that information gets 3 4 pushed down to our compliance manager, who sends it out to our instructors and our aircraft experts, and 5 they look at it and make recommendations. There's a 6 7 quarterly meeting then to discuss which ones will be acted upon. 8 That's below your level? 9 0 I'm the ultimate decision-maker. 10 Α Yes. 11 way up to you? Α Yes. 12 The engineering department, do they 13 0 14 coordinate with you their decision to move forward to a service bulletin, or do they only handle the 15 mandatory ones? 16 They -- we've begun having meetings. As a 17 Α matter of fact, there was oNe this week. I wasn't 18 able to go to it, but I sent Bob Steinbauer, the 19 person that's directly under me, and they looked at 20 21 all of those bulletins and updated people where they 22 And then the nonmandatory ones, they were at. applied a risk assessment to them to find out what 23 the actionable items were and unactionable. 24 Q And then if you read a service 25

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20 1 information notice that you think is relevant to the pilots, what do you do with that? 2 3 Α There's two things we can do. One is, we 4 can do an e-mail broadcast, and we have. Or we can 5 put a link to that information up on the 411 System, which we do. 6 7 Would that be something that a pilot 0 would be required to acknowledge receiving? a 8 mandatory bulletin, yes, we want them to acknowledge 9 We have a -- not a limitation but a challenge 10 it. 11 with our 411 System, in that we can't broadcast just to one specific type of aircraft. 12 We can't say it only to people that fly the AS350, so everybody gets 13 14 it. But that's probably not a bad idea either because it just gives them more awareness. 15 How are safety issues communicated to 16 Ο pilots --17 A lot different than --Α 18 -- different from the notices if there 19 Ο 20 was a safety concern? 21 Α Well, there's a couple products that we 22 The safety department can put out a safety have. notice, and there are several different kinds. 23 We can do fleet campaigns if it's on the maintenance 24 side, and we've done those before. And there's also 25

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1	the word of mouth where we have all of our
2	instructors, the instructor cadre, update the pilots
3	as they come through training. And on my weekly
4	regional aviation director calls, we pass that
5	information down to let them know whether this is
6	watershed information that something else, that it's
7	just for them to watch for.
8	Q All right. The FAA representative is
9	here. You know him.
10	Matt, can you spell your last name,
11	please.
12	MR. RIGSBY: Sure. R-I-G-S-B-Y.
13	Q (By DR. WILSON) Are you aware of the
14	safety information notice on the hydraulic power?
15	A Iam.
16	Q Were you aware of that before the
17	accident?
18	A No, not specifically this one. I noticed
19	the service bulletin that came out. Oh, I'm sorry.
20	Q Not that you need to reference it, but
21	just is this the one you're referring to?
22	A Yes.
23	Q Okay. Have there been any discussions
24	about this service bulletin and moving forward with
25	putting the hydraulic indicator on the panel?
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1	A Yes, the company is moving forward with
2	that. that installed?
3	A The timeline is dependent upon the
4	accessibility of parts. It was the president
5	said he wanted it done ASAP, as soon as possible,
6	and I know the engineering department has identified
7	the aircraft and have a plan in place for that.
8	Q Okay.
9	A I'm going to take it back. I was aware
10	of this.
11	MR. BUTTNER: What is "this"?
12	DR. WILSON: The safety information
13	notice about hydraulic power that was sent in August
14	of 2014.
15	A Right, 2014, 8/21. Okay. Yes, I was
16	aware of this one.
17	Q (By DR. WILSON) Would there be a record
18	if this was distributed to the pilot?
19	A Yes. There would be a record of it on
20	the 411 System.
21	Q Okay.
22	A And I also believe, looking at this, I
23	believe this also has been used for a while by the
24	training captains that trained in the AS350 pilots
25	when they transition them.
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After the June 26, 2014 incident 1 Q Okav. that occurred in Temple, Texas, was any safety 2 information communicated to pilots regarding that 3 incident or anything to be aware of? 4 I'm not aware if there was or there 5 Α wasn't. 6 7 0 Okay. Other than what I was told, that the 8 Α training cadre had a document that they were sharing 9 with the pilots. 10 11 Q Are you involved in a decision to organize a public relations event? 12 Participate, but not really Α No. 13 14 organize. Well, do you approve of pilots's 15 0 participation in that? Or who would approve? 16 I could approve it, myself, or the chief 17 Α pilot. 18 Were you involved in the approval 19 Okav. 0 for this PR event on July 3? 20 21 Α No, I was not. How would you describe the company's 22 0 Normally good. The closer you get to a 23 Α contract, the more tenuous it gets. But I would say 24 right now that it's level. There's really no peaks. 25

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1	It's pretty much stable right now.
2	Q Are you involved at all in discussions on
3	changes to procedures?
4	A Yes.
5	Q What is your involvement?
6	A It would be it depends on what type of
7	procedure, but all of the operations roll up to me,
8	and so any type of changes to our flight operations,
9	whether that would be with crew members or pilots or
10	grounds operations, I would be involved in either
11	participating in meetings through a root-cause
12	analyses, or we have a couple different safety
13	meetings we have. One's called the SART, Safety
14	Action Roundtable, and a SORT, Safety Operations
15	Roundtable, that's chaired by the CEO. And during
16	those meetings and those root-cause analyses, I have
17	input.
18	Q How often are the SARTs and SORTs held?
19	A Monthly. that Air Methods has made based
20	on procedures, or training based on a safety
21	information notice that has been received?
22	A I am. I know that there were four
23	primary aircraft. When I say that, I mean the ones
24	that we have the most of. The checklists have been
25	updated. They were looked at, reevaluated for flow

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1	and applicability, and they're submitted to the FAA
2	so that we can it's changed to make sure we have
3	a great product out there for the pilots to use.
4	Q Was the B3e one of those?
5	A Yes.
6	Q And what change was made to that; do you
7	remember?
8	A Some of the hydraulic tests was one of
9	them, and they were actually, they rearranged
10	a lot of this was rearranging the flow of how things
11	went through them. And we did that for the EC130,
12	for the AS350, for the Bell 407, and the EC135.
13	Q Before changes are approved to do
14	procedures or checklists, are pilots involved in
15	that decision-making? experts in each airframe. And
16	so we use the experts to make recommendations up to
17	us of what we need to do.
18	Q Are those experts current in flying the
19	particular aircraft?
20	A Yes, they're current, and they're
21	provided instructors. They're full-time
22	instructors.
23	Q There have been a lot of changes in
24	management recently at Air Methods?
25	A Yes.

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1	Q Do you know why?
2	A I do not know why. I know we're
3	talking, I think, about the VP of safety and the
4	director of safety?
5	Q Yes.
6	A I knew Ed Stockenhausen very well. I
7	just saw him a couple days ago. He's going to a
8	consistent operator. And Michael Koens, who was the
9	director of flight safety, has gone to a competitor
10	as well. And the both of them neglected to want to
11	share with me the reasons that they left.
12	Q Is there any concerns about safety,
13	A Yes, there was a concern, but we took
14	immediate action.
15	Q To clarify, there was concern with them
16	leaving, or they left because there was a safety
17	concern?
18	A No. There's just the operational concern
19	that we had two vacant positions, so we needed to
20	immediately conduct a safety risk assessment on
21	those two people being gone, and making sure that
22	all their roles were covered.
23	Q What was the outcome of that risk
24	assessment?
25	A That one the outcome of that was a
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1	second one, where we met with the FAA and got
2	together with safety, FAA operations, and we had an
3	all-day roundtable, and we went through everything
4	through our SMS system, making sure there was no
5	gaps, and we also got concerns from them, if they
6	had any, and we all agreed Checkbox going forward,
7	you know, is the company healthy as far as
8	financially, union issues, were there employment
9	issues, can we manage the certificate, and that was
10	favorable.
11	Q Was a union representative a part of
12	A No.
13	DR. WILSON: I think that's all the
14	questions that I have for you right now. Thank you.
15	Jennifer?
16	BY DR. RODI:
17	Q Do you recall or do you know when Air
18	Methods received its Part 135 certificate of
19	operations?
20	A No. 1989 comes to mind.
21	Q Okay.
22	A 35 years.
23	Q How many states do you currently operate
24	in?
25	A 46, and Haiti.
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1	Q And how many bases do you have?
2	A The number goes up and down, but a safe
3	number is 298.
4	Q And when did Air Methods start operating
5	in Frisco, Colorado?
6	A They're one of our original customers. So
7	it's been many years.
8	Q At the Frisco base specifically, did you
9	have any safety concerns prior to the pilot, the
10	flight crew, or the maintenance there specifically
11	at Frisco?
12	A The only concern I had at Frisco was that
13	we had an aircraft that was being ground handled,
14	and it was moved into a pole that was in the hangar.
15	We did a root-cause analysis on that to see if there
16	was further action needed. If you've ever been up
17	there, there's a pole that hangs right straight down
18	in the middle of their door, and it has to be
19	physically moved out of the way. The mechanic got
20	distracted and ran the helicopter into it. So that
21	was one concern.
22	Q What audit things take place at Air
23	Methods take place on an annual, semiannual, or a
24	biannual basis?
25	A On a quarterly basis, we have base
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self-audits that is comprised of issues that we've discovered through our AIDMOR process, or whatever our reporting systems are. If we get concerns, the FAA always participates and tells us what their concerns are. And so once a quarter, every base in the company is given an audit where they have to go out and look at things and mark them as compliant, noncompliant, that on the aviation ops side, we do it on the maintenance side, and we do it on the medical side quarterly.

The safety department also runs their audits that are independent of our audits, which is essentially going out to make sure that what we said was good or bad, that they didn't find anything different, and also to make sure improvements have been made. But that's the two primary audit systems we use for the field.

18 Q Are there accreditations that you19 currently hold?

A I would like to say CAMTS. We sort the CAMTS, but they won't certify a certificate. But we have our programs certified under CAMTS.

23 Q And any external audits aside from the 24 FAA that take place here?

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A Yes, CARP. We have a CARP audit. They're

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every two years. And with the FAA, they have that consider they've implemented the new ^ SAS system, which is a much more robust way of doing audits at the bases when they come out, or even at the operations. We've liked what we've seen with that so far. It takes all the enough to where you know that everything's being covered and nothing's being missed. But we also know what the topics are, and so does the FAA.

Q Changing direction, can you elaborate and describe your interactions and relationship with the FAA?

I have a good relationship with the -- I Α 13 14 should probably separate a couple things. So from time to time I go to Washington, and I talk to John 15 Duncan and his crew up there, and I have a good 16 relationship with them. I also have a good 17 relationship with my principal operation inspector, 18 19 and the PMI and the ops inspector. We've recently 20 really started clicking as far as operating. You 21 know, we're both cognizant of the size of this operation and the care and handling that it needs. 22 And with the new -- the philosophy in compliance and 23 enforcement that came out from Huerta, the 24 administrator, it's had an immediate impact on us 25

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and our relationship with them, and the reportability is good. The transparency is really good, and they're being responsive to us, or to me specifically. or audits or meetings with the POI or different FAA inspectors?

A We have a standing meeting every month with the FAA, which includes all principals for the certificate side. To director of maintenance, chief pilot, myself, and then they have our opposites. We have Eric Monteith, who's the principal operations, and we have Randy Kine from maintenance, and we have John Barrons, who does the avionics. That's once a month. And then I talk to Eric probably twice a week, the POI.

Q And then changing directions one more time, have there been any safety actions taken as a direct result of this accident?

Α Yes. The safety accidents on the --18 installing the light configuration helicopter for 19 the disagreement switch position. 20 The training --21 they're reinforcing, once again, the differences training. Pilots may fly -- their standard aircraft 22 at the base may be dual hydraulic, but they may have 23 a single hydraulic as a backup, so reinforcing that 24 that secondary training really has to be thorough 25

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32 1 and make sure an action that I took outside of that 2 was, I'm a member of the AAMS, A-A-M-S, and I'm on the document committee, director of operations 3 4 committee, and I shared the information about cautions about the hydraulic system and what can 5 happen based on what's in the service bulletin in 6 I shared it with all the other documents that 7 here. operate these aircraft. 8 BY MR. SHIN: 9 You had mentioned that the service 10 Ο 11 bulletin for the hydraulics, like, was going to be implemented or is going to be implemented as a 12 result of this accident. When the service bulletin 13 14 first came out, was there a risk assessment performed on this service bulletin since it was not 15 mandatory? 16 I was not involved in that if there was, 17 Α so I can't say that there was one. And just to 18 clarify, that engineering said that they had planned 19 20 on doing this all along. It was just in the queue. 21 So it wasn't specifically as a result. The timeline 22 was moved up because of the accident. So engineering normally handles 23 Ο Okav. the risk assessment for this if it's service 24 bulletins? 25

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1	A Yes.
2	Q Do they usually get involved in doing
3	their risk assessment or in sharing the risk
4	assessment results for nonmandatory service
5	bulletins?
6	A Not always. I want to make it clear.
7	There was a change over one of the corrections, and
8	I missed that on your question. I'm sorry. One of
9	the changes made was how we handled those
10	nonregulatory bulletins, and that is that they come
11	to me now, and then there's a process. It gets it
12	down to the instructor level, and then that feedback
13	comes back up in a quarterly meeting we discuss with
14	engineering, and then they do the rack at that
15	point, and everything's in the room. But that's a
16	new process.
17	Q Do you have any flight experience with
18	the AS350 model?
19	A I do, but it was over 10 years ago.
20	Q Do you remember what variant?
21	A B2.
22	Q Do you have any concerns with the
23	hydraulics checks?
24	A No. As a matter of fact, one of these
25	bulletins just came out. A service bulletin came

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1 out a couple days ago. I just got done reading it. And it's pretty complex. 2 I need to go back over and review exactly what it's saying. But no, I think 3 4 that with the checklist -- and you can handle pretty much any of those complicated systems, if they are 5 complicated, just through the routine checklist. 6 7 And are you aware of -- prior to the 0 accident, were you aware of any pilot concerns on 8 the AS350 hydraulic system, either the single or the 9 dual hydraulics? 10 11 Α Both. And there's a website that the pilots use as a public forum, and that's where a lot 12 of the chatter about this comes up, and I've read it 13 14 out there before. It's called "Just Helicopters," And so there's pilots that complained about -- like 15 they complain about everything sometimes. 16 Thev complained about single hydraulics, that there was 17 no redundancy, and then now they gave them dual 18 hydraulics, and they have other issues. have for 19 Thank you. 20 now. 21 DR. RODI: Matt? BY MR. RIGSBY: 22 And again, sorry for being late. 23 This Q wonderful weather. 24 You talked about the flight manuals and 25

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1	reviewing them. You said it's a group of people
2	that do it.
3	A Yes.
4	Q As far as, I guess, is it the group
5	who initially does the review of the aircraft
6	operations manual, or the flight manual, the RFM,
7	and then developing a checklist out of that?
8	A The checklist development, it then is
9	kind of both it's the same thing. So the
10	engineering department has told us that, any flight
11	manual recommended changes, and all we could
12	recommend for the flight manual was the checklists.
13	So when we submit the checklists for the FAA, those
14	are prepared by the training cadre, and usually by
15	well, actually, I shouldn't say usually always by
16	the aircraft specialist.
17	Q And that is what is developed I'm
18	there a basic checklist and then an abbreviated
19	checklist?
20	A Yes.
21	Q Okay.
22	A So right. There's an abbreviated
23	checklist, there's expanded checklists, and then
24	there's the flight manual that's in the aircraft
25	that has the manufacturer's checklist. And then for
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the twin engine aircraft, we're required to have an emergency procedures checklist. But we developed those three that I just mentioned, the ones that -and we submitted those to the FAA for acceptance.

Q And so if I walked out to the aircraft to get in to fly it and gone through the training, what typically is the checklist in that aircraft? Is it the abbreviated checklist, is it -- or does it depend on the aircraft?

It would be both. You would have the --10 Α 11 I like to refer to it as the basic checklist, which is -- the expanded one includes the pre-flight 12 And then the -- after the first start activities. 13 14 of the gate checklist, if you will. Both of those will be in the aircraft. transition training, how 15 Is there a ground school part 16 many hours is that? 17 of it, and then an aircraft part of it, you know, where you learn the new systems and that type of 18 19 thing, or...

20 Α There is. And there's a -- just like you 21 described it. There's several types of training. There's initial new hire, which is a bit longer than 22 somebody that's just transitioning into an airframe. 23 But for the single engine helicopters, it could be 24 anywhere from 5 to 8 hours. There's no regulatory 25

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mention of how long it should take or how short it could be. But we do have -- in the training program, we have what we call programmed hours inside of their -- for those aircraft. And I don't recall them off the top of my head of what they are. That's two separate things. All-day ground school, usually one- or two-day ground school, and then flight, day and night.

Q When you get a guy in, does Airbus ever come out here to do your training, or do you guys send pilots to Airbus for training, like on a new variant?

A No, they don't come out and train the have, and we will send our people out there. I've been out there and flown with them before. And we train our own people. We don't have any type of approval to use outside services to train.

Q You were talking about the new FAA audit system. Has it been in place long enough that Frisco got part of that?

A Don't know if they visited Frisco or not. We just created a new report this year. It's an OAIR report. So every time there's contact at a base, we get that information provided from the field. And if there's -- basically a narrative, who the

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1 inspector was, time they were there, what they 2 looked at, and if there were any concerns, follow up their findings. And then we use those to create our 3 corrective actions, preventative actions. 4 That would be like a geographic 5 0 inspector, say in San Jose or something, that goes 6 7 out and does a base inspection? That's it. 8 Α And then your guys would submit stuff on 9 Ο this was what was covered, and then, to the POI here 10 11 in Denver? Δ Correct. And then once a year we get 12 together and discuss those results with the FAA. 13 14 Q How long has there been a POI? Officially, less than a year. 15 Α Who was it before that? 16 Ο Okav. Well, they hadn't really appointed 17 Α anybody, and so they had two acting POIs, assistant 18 POIs, and no real POI. The frontline manager was 19 sort of handling those functions. 20 21 Was that Mr. Haynes? 0 22 Α Yes. Had there been any issues with 23 Okav. Q 24 those quys? Α No, I wouldn't say there were really any 25

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issues. Again, when you've finally got people that are in place in their positions, it's easier to build that working relationship. It's always disruptive to have transitionary periods where nobody's in charge -- I didn't mean that. There's people in charge, but there's no one head to the horse. It's three bites.

Q This all-day meeting that you guys had with the FAA, what were some of the topics in any of the bulletins issues that you had in the -- was any of that discussed?

Α It was, Matt. That whole process was 12 discussed, how robust it was. The way the meeting 13 14 started was, we grabbed our SMS manual. We started this back in 2009 when we got to Level 4. 15 Some of the same people are still there at the FAA, which is 16 still there for us. But we took that manual, the 17 one that we were accepted with, and we went through 18 19 it, and particularly of assignments, and made sure that all of the audits, all of the supervision and 20 21 oversight was still being done, or some of it hadn't been done or was going to be done. We assigned it 22 to people so we could solve those problems. 23 And 24 then we got into operational issues. And yes, that was absolutely one of the ones that came up, is how 25

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1	do we handle nonmandatory bulletins, do we have a
2	formal process.
3	Q Are you on Airbus's TIPI program?
4	A I receive notifications from them.
5	Q Okay.
6	A We have a good I'd like to compliment
7	you on the instructor's guides that
8	Q Based on the information on this
9	accident, what other like your stuck pedal
10	training. Can you just kind of go over, you know,
11	if a guy's got a stuck pedal right at lift off, do
12	you know the procedure off the top of your head?
13	A No, sir. That would be the chief
14	pilot would be able to tell you that.
15	Q Okay.
16	A I know it's different in each make and
17	model.
18	Q Had you ever flown with Mr. Mahany?
19	A No, never got to fly with him.
20	Q Are you aware of any comments or reports
21	from either the medical crew or somebody at the
22	hospital or mechanics about Mr. Mahany and anything
23	either good, bad, or indifferent?
24	A That's a pretty open question. I went
25	out to the I went up to Frisco within a couple

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1 days of the accident, and the whole purpose of my visit was to talk to the medical crews and give them 2 3 a chance to get ahold of some -- their hands on 4 somebody from Air Methods. And in that debrief, of course, they said all kinds of pertained to Mr. 5 Mahany, it was -- as it was for the two crew members 6 7 that were in the back, is how great they were. But they did mention that Pat was very knowledgeable 8 about the position of that hydraulic switch, and 9 that he told all of them -- this is one of the 10 things that stuck with me. He all of the crew 11 12 members to keep an eye on that, and that if he had it in the wrong position, they're all going to get 13 14 messed up. And so they were always looking at that when they would take off. That was a focus point. 15 And Pat told them all about it. So I knew from that 16 that Pat was aware of it. 17

Q Okay. As I recall, Air Methods as a program to where, say, a medical crew has an issue with a pilot, they can report that. Is there an internal reporting system, I guess is what I'm trying to --

A There's a couple of them. But the primary one that they seem to always use is the alert line. And so that's done off-site. That's a

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1 number they can call, but it's handled by a vendor, 2 and they get the information, and they provide it to us without identifying who said identified. 3 Q Sure. And that works both ways? I mean, 4 I'm not focusing just on the -- if the pilot has 5 issues with the medical crew, as far as them being 6 7 forceful, or the medical crew putting pressure on them to take a flight, he can report that as well, 8 correct, through that same system? 9 10 Α Right, yes. He can do the same thing, or 11 they can talk to management. Sometimes they can get 12 it from the union. The pilot reports it to the union, and the union tells us about it. So there's 13 14 several -- I didn't want to limit it to that's the only way, but that seems to be the most frequent way 15 16 that it happens because we get to the alert line. I think you guys have the FOQA program 17 Q through the Appareo system. Are you a part of that 18 19 review process, or is there a step in between, you 20 know, a --21 Α There's a big step in between. Okay. 22 0 So the letter of agreement that we have Α 23 with the FAA and with the pilots union is that the 24 union -- they're the gate keepers, and and they work 25

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with our FOQA manager, Jeff Curran, and quarterly we get reports of generically what they're seeing or not seeing. And to that extent, yes, I'm involved. I get to find out what the bigger issue is. I don't get any specifics about where, when, what you, yeah.

Q Have there been any FOQA reports of hydraulic -- you know, them noticing guys maybe missing steps or, you know, saying you need to not follow the checklist or something like that?

The status of the system right now is 10 Α 11 because of the limited video in the cockpit, we're 12 not getting that right now. We will be. That's part of it, we're going to have video where we can get 13 14 that a lot more. Of course, for the DO, that's always a concern, what are they doing inside the 15 aircraft, and are they following the procedures. 16 And there's really no way for me to know until 17 either you run the LOSA, and you get results back 18 from that, or you have a way to have the union 19 monitor it and say, okay, your people are doing this 20 21 or not doing that, and you need to do a better job 22 of doing something else. But no, I haven't seen any particular FOQA data 23

MR. RIGSBY: I guess that's it.

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BY MR. BUTTNER:

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1	Q Just one follow-up. You had mentioned
2	that you said today you received the service
3	information or service bulletins through
4	engineering?
5	A I read it today. It was in my inbox from
6	I think yesterday.
7	Q Okay. I was curious. I think she asked
8	how you get that, and you said that it comes from
9	engineering, and it's always been that way?
10	A No, it has not always been that way. I'll
11	make that clear. It's that way now. It was not
12	that way on July 3.
13	Q And then you'd also mentioned that since
14	the accident, you've talked about the dual
15	hydraulics, and I think specifically that service
16	information notice, and I can't remember what group
17	or committee you said you discussed it with. But
18	was that discussed or brought up or any of those
19	service information notices or anything like that
20	from any manufacturer talked about prior to the
21	accident? this to it's AAMS, the Association of
22	Air Medical Services, one of the groups I'm on. And
23	so we have the DO committee, and we can communicate
24	rapidly with each other about any type of issues.
25	And right after an accident, of course, everybody
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1 wants to know what happened, did you learn anything. And so out of an abundance of caution, I said, look, 2 there's a lot of talk about hydraulics, so review 3 4 anything you can find about it, talk to your pilots, and just make sure that people are using checklists, 5 and that they know which aircraft they're in. 6 7 So but here, in-house at Air Methods, 0 were those reviewed, or was that just talked about 8 here before the accident? 9 This one right here -- and the reason 10 Α 11 that I first said I don't think I've seen this one -- I didn't see it -- was this is the one that the 12 instructors were using in the field to train since, 13 14 I think, about 2000-whenever it was that this came out, in '14 they were using this, and that there was 15 something else that kind of rings a bell about 2010, 16 there was another document that I thought I saw. 17 But yes, I and I talked to some of my regional 18 directors about any safety notices, bulletins, 19 information letters that they had, and they said 20 21 ves, we have information. We share it with every pilot, and we give everyone a copy of it. 22 MR. BUTTNER: 23 That's it. DR. RODI: Ed? 24 BY MR. STENBY: 25

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1	Q In regards to updating the checklist,
2	what was the motivation for that? Was it just to
3	ensure that they're efficient, or to improve the
4	flow, like you said, or is it also to maybe reduce
5	pilot workload in order to increase off times? What
6	are the motivations to modify those checklists?
7	A Yes, Ed. And one of the ones you said,
8	no, it has nothing to do with lift times, nothing to
9	do with it. We had a LOSA observation. And in a
10	LOSA observation, one of the items that was
11	discovered is that there was an issue with pilots
12	fully utilizing checklists. And the internal this
13	was before the accident. In the internal discussions
14	we had at our safety meetings, we said that one
15	possible reason for the group agreed that that would
16	be a great first start, is to look at the design.
17	We have a person on staff here that's worked with
18	NASA and doing checklists, said we got the people
19	here, let's go ahead and have our experts in the
20	field tell us what they should look like. And, of
21	course, they're out talking to the pilots, so
22	they're really getting input from the field, and
23	then provide that input back to us, give us a new
24	document, submit it to the FAA, and that was the
25	whole reason, was to simplify and to reduce the

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1	workload but not miss any big steps.
2	Q Okay. Can you also describe what type of
3	action is being taken by Air Methods in regards to
4	fuel cells?
5	A No action that I know of as far as the
6	fuel specifically on which aircraft?
7	Q Well, the AS350 specifically. What's
8	being I think that's been identified as a problem
9	or a concern, and I'm just curious what type of
10	action Air Methods is going to potentially take on
11	the fuel cells.
12	A So we don't disagree with the letter that
13	was sent up to Huerta and by NTSB out visiting us.
14	I think that in the broad spectrum of it, that I
15	personally like what the NTSB is trying to do to
16	push this forward, to give a crashworthy fuel cell
17	for all aircraft, not any specific one. We would
18	like to see that, but we also understand that
19	they're just retrofit issues, there's availability
20	of even getting them engineered and done, and it
21	takes some regulatory changes to make all these
22	things happen. But to my knowledge, Air Methods is
23	not doing anything independent on fuel systems.
24	MR. STENBY: That's all the questions I
25	have.
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1	DR. WILSON: I think several people have
2	questions. Jennifer?
3	BY DR. RODI:
4	Q How were the safety information notices,
5	service bulletins, disseminated prior to the
6	accident?
7	A They weren't.
8	Q And who was the lead pilot at Frisco?
9	A I believe that's Loren Courtney. I'm not
10	sure. I'm guessing. But Loren's the one I talk to
11	the most up there. you. Ed?
12	BY MR. STENBY:
13	Q Just real quick, Dennis. How many makes
14	and models of aircraft does Air Methods operate?
15	A I told them about 24. But what we're
16	going did you say make or operate?
17	Q Makes and models.
18	A Okay. I'm going to get a specific list
19	for the group, and I'll have that as soon as we're
20	done here. I'll have them before you leave today.
21	Q On that list, there's an AS350. But
22	there's a B2, a B3, a B3e. Could the list
23	delineate, if possible
24	A I could do that.
25	Q Do you know what I'm saying? Because
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1	there's different checklists with each one.
2	A I understand. The answer to your
3	question is, yes, I'll break it down in that detail.
4	DR. WILSON: Okay. Anybody else?
5	BY MR. BUTTNER:
6	Q Actually, I think it's the abbreviated as
7	in the aircraft, is that for all AS350 models, or
8	are those different for each aircraft such that
9	kind of the same question, but are the checklists in
10	each one different, or is it the same across the
11	AS300s?
12	A My understanding is that they're the
13	same, and the differences are noted. So, for
14	example, to a non-dual hydraulic aircraft, the
15	checklist would not be the same as the dual
16	hydraulic checklist. It would be different because
17	of the variant.
18	Q Are you on the committee that produces
19	those checklists, or once they are made?
20	A On this last round normally, the chief
21	pilot does that function. But in this last round,
22	out of the ones as a result of the LOSA audit where
23	we were trying to do the noncompliance checklist, I
24	reviewed them. I look at them for format and those
25	type of things.
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1	Q That was after the accident?
2	A Yes. Or they got accepted afterwards,
3	but they were submitted I don't know when they
4	were submitted. Raj will be able to tell you when
5	you talk to him, so
6	Q I just have a couple follow-ups. You
7	mentioned that there was one system where pilots or
8	even medical personnel, they could report issues
9	confidentially. Is there a system to report
10	anonymously?
11	A Yes. That's the same system. It gives
12	you the option of anonymous, and you get a couple
13	choices, you can talk to somebody and do it that
14	way. You can just leave an anonymous report with
15	them and no contact information is another way.
16	Q So it's a hotline?
17	A It is a hotline.
18	Q Is there an online system where you could
19	do that also?
20	A They could report anything to through
21	the ASAP system or MSAP. Now, that's not completely
22	anonymous because the FAA receives simultaneous
23	notification of those submissions. I never see them,
24	but our ERC manager sees them at the same time.
25	Q So if I had a concern that was not
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ASAP-worthy, my only way to report that unanimously or confidentially would be through

3 Α Or through your -- so we had three 4 different primary types of operations. We have the CBS for all Air Methods employees. So to them, they 5 have, yes, the hotline. They can do an AIDMOR and 6 7 be anonymous as well. There's an option there for And they can also go up through their 8 that. management and keep it anonymous. For the operations 9 where we have the -- as a matter of fact, just like 10 11 Frisco, where we partner up with the hospital, and 12 it's their medical crew members, they have their reporting systems and ways to get information to us 13 14 anonymously so that -- and we get several of those too, where the customer will go and talk with the 15 president of the company and he won't tell us where 16 the complaint came from, but he wants us to look at 17 this one. 18

Q AIDMOR, could you just briefly describe that, spell it and describe it?

21 A It's A-I-D-M-O-R. It's Aircraft Incident 22 Damage Operations Report.

Q And you mentioned that a pilot could report anonymously through his supervisor. How does he report anonymously through his

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1	A I apologize. I see the nature of the
2	question. A manager would know that he told him.
3	But the what our CEO says and what's in writing
4	is, is that they have that right to be protected
5	from disclosure.
6	Q Okay. So the supervisor could pass along
7	the concern without saying that this particular
8	pilot made that
9	A HR is good at that, our human resources
10	department.
11	Q Can pilots come to you if they have an
12	issue?
13	A Absolutely.
14	Q Have they done that?
15	A They have.
16	Q What sort of issues have they brought up?
17	A It seems mostly personnel issues, getting
18	along with people at the base.
19	Q Any concerns brought to you since the
20	accident?
21	A No. The most recent concern I got is
22	still sitting on my desk and was somebody was
23	asking about my interpretation of duty time and
24	brought up that issue to me.
25	Q Okay.
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1	DR. WILSON: Last chance?
2	Q (By DR. WILSON) Anything else that you
3	think we should know that could help with the
4	investigation?
5	A No. I have more questions than answers.
6	I would just like to know more about exactly what
7	happened. It's still a mystery to me.
8	DR. WILSON: Hopefully we will get to the
9	bottom of it, and it will all come out in our
10	report. Thank you very much for your time. I
11	appreciate it.
12	(The interview concluded at 10:20 a.m. on
13	November 2, 2015.)
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Dennis McCall

DATE: 10-23-15

I hereby certify that the attached transcription of page 1 to 54 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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## NATIONAL TRANSPORTATION SAFETY BOARD

	*	
INVESTIGATIVE INTERVIEW	*	Docket No.:
RE FRISCO, COLORADO	*	CEN15MA290-91489
ACCIDENT THAT OCCURRED ON	*	
JULY 3, 2015	*	
	_	

## INTERVIEW OF: WILLARD GRAY

Friday, October 23, 2015

11:02 a.m.

Air Methods 7211 South Peoria Street Englewood, Colorado 80112 From the NTSB:

KATHERINE A. WILSON, Ph.D. JENNIFER S. RODI, Ph.D. CHIHOON SHIN

From the FAA:

MATTHEW RIGSBY

From Airbus:

SETH D. BUTTNER ED STENBY

Representing Air Methods:

COREY J. WRIGHT, ESQ.

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1	PROCEEDINGS
2	DR. RODI: During the course of the NTSB
3	investigation, we have the party system, in addition
4	to accredited representatives and technical liaisons
5	for which we have representation today, during these
6	interviews, and then throughout the entire course of
7	the investigation. The purpose of the party system
8	is to rapidly bring technical knowledge of all
9	things involving the accident, the helicopter, the
10	operator, to help move the investigation forward.
11	And then it ensures that it's a complete and
12	thorough investigation as we move forward, and that
13	all bases are covered to the greatest extent
14	possible. Any questions with regards to the
15	accident investigation process?
16	MR. GRAY: Not at this time.
17	DR. RODI: Excellent. So when you answer
18	questions, you answer them to the best of your
19	ability, don't nod yes or no, if you could answer
20	yes or no if the question warrants, but not physical
21	motions as those are difficult to document.
22	MR. GRAY: Can I do them together?
23	DR. RODI: Yes. And then any other
24	questions before we get started.
25	MR. GRAY: Not yet.

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1	DR. RODI: Excellent. Dr. Wilson will
2	lead the questioning. She'll lead the interview.
3	And then if there are follow-up questions, questions
4	for clarification, the rest of the group will also
5	ask questions when she's finished.
6	MR. GRAY: No problem. BY DR. WILSON:
7	Q Do you mind if I call you Archie?
8	A By all means.
9	Q On behalf of the NTSB, let me extend our
10	condolences for the loss of one of your colleagues.
11	A Thank you.
12	Q And we appreciate your participation in
13	this interview.
14	A Thank you.
15	Q If you could please state your full name
16	and position at Air Methods.
17	A Full name is Willard Melton Gray, Jr.,
18	but no one knows that. That's why it says W M on my
19	card. And it's Archie. I've gone by Archie for
20	most of my career. My position is senior vice
21	president of aviation services for Air Methods.
22	Q And how long have you been in that
23	position?
24	A Well, that's a tough question.
25	Approximately three years.

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1	Q And if you could describe other positions
2	that you've held since coming to Air Methods?
3	A I've been vice president of aviation
4	support, I have been director of technical services,
5	the positions I've held since I've been with Air
6	Methods.
7	Q And when were you hired?
8	A July 1, 2002.
9	Q And if you could describe your background
10	briefly prior to coming to Air Methods.
11	A I worked for PHI for almost 28 years. I
12	started October 9, 1974. I started as a line
13	mechanic and worked various positions in PHI up
14	through the ranks and before coming to Air Methods
15	in 2002. So October 9 was 41 years in the industry.
16	Q Are you a pilot?
17	A No.
18	Q Do you ever go along on any flights just
19	to familiarize yourself with the operation?
20	A Sure.
21	Q How often do you do that?
22	A Oh, it varies. I haven't been on one in
23	probably a year. When I go to field bases,
24	sometimes I will take a ride with some of the people
25	at the field base if they're inclined to do such.
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1	But it's not something on a regular scheduled basis
2	that I do.
3	Q And as the senior vice president of
4	aviation services, what is your duty and
5	responsibilities?
6	A To do whatever the CEO asks me to do. And
7	other than that, I'm responsible for the aviation
8	support, which includes the 145 repair stations,
9	material management, engineering reliability,
10	aircraft records, and safety would fall into that.
11	Additionally, I serve on the tourism
12	board, and so I have a from a board member of
13	tourism, some oversight of our tourism operations.
14	But all of the certificates have a dotted line to
15	me, and our organization more for integration and
16	communication.
17	Q And who do you report to?
18	A Aaron Todd.
19	Q And he is?
20	A CEO.
21	Q Are you currently acting in any positions
22	right now?
23	A I'm the acting vice president of safety
24	with the when Ed Stockenhausen left the company.
25	Q And how long have you been acting?
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1	A Roughly a month, maybe six weeks. I have
2	to look at my calendar to give you an exact date.
3	Q And as the acting VP of safety, what are
4	your duties and responsibilities?
5	A Well, the duties and responsibilities
6	are, I have the oversight of the safety culture and
7	the safety administration of the company. We
8	currently have two positions open. One of them is
9	I'll get a number that's director of flight
10	safety. That is we've got a number of applicants
11	that will be going through and interviewing for that
12	position. The vice president of safety is a much
13	larger role, and we have hired a headhunter to
14	hopefully secure that position.
15	Q And do you know why Mr. Stockenhausen
16	left the position?
17	A I know what he told me. He just said he
18	was going to work for the LOSA Collaborative, as
19	LOSA now has LOSA we were the first helicopter
20	company participating in the LOSA Collaborative, and
21	that was one of the things they wanted to expand
22	into more of the helicopter. They were very much on
23	the airlines, but they wanted to expand more into
24	the helicopter realm. And so that's where he told
25	me he was going. Now, quite honestly, about an hour

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after he told me that, the phone call came in from a 1 competitor of ours and an old friend of mine and 2 3 said, "Look, we don't want to have any problems with 4 you guys, but I want you to know I'm not recruiting, but this applicant came in, and we're very 5 interested in him, but we don't want to have any 6 7 problems." I simply told him there's no problems. So just that Ed was not 100 percent forthcoming when 8 he told me what he was doing. 9 10 And given that there were two open 2 0 11 concern for the organization as a whole? 12 Α Well, sure. I mean, it's a concern. In safety, if I had positions open in a lot of areas, 13 14 it would be a concern. But we've pulled together 15 some of the things that I -- and this has taken on a larger role that's -- people downstairs have taken 16 17 on a larger role. Raj has taken on a larger role. 18 So the items are being addressed, but it is -people have taken on larger roles for the interim 19 time. 20 21 Were you involved in any risk assessment 0 that was done given the vacancies? 22 I was not. 23 Α Were you briefed on the results of the 24 0 25 risk assessment?

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1	A I was briefed on it.
2	Q And what were you told?
3	A I was told that the now you've got to
4	make me remember that we had the gaps for the
5	flight safety side. We have a succession plan,
6	though, so we filled that with our succession plan.
7	The leadership of the the direction of the safety
8	culture, where we were going with the safety
9	department. We had that gap, and that's what I'm
10	trying to fill in my role. So those are the two big
11	areas. The major one I was most concerned with is
12	directing the safety culture.
13	Q And that's a great segue. Could you
14	describe the safety culture for me?
15	A Well, the I mean, it's a broad
16	question, describing the safety culture. This
17	can I because you don't want my opinion because
18	that's an opinion. Can I give you an example when
19	Christopher Hart came by? And you guys may have
20	heard this.
21	Q Okay.
22	A There was nothing that was planned, but
23	it sure made me feel warm. When he came, we were
24	touring him around just to you know, we met with
25	him. We took him over to the training center. He

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1 addressed -- we had a class of pilots and clinicians 2 to get together in one area, and he got up and addressed them for a little bit, and then he asked, 3 4 "Tell me, how do you feel about Air Methods," and five people spoke up, and all of them are 5 clinicians, two of them were pilots that spoke up 6 7 during this, and they said, "We've never seen a place that put the emphasis on safety like Air 8 That is what I hope gets out, so when 9 Methods." 10 I've got a class that's saying that, and no one is 11 prodding them. They didn't sit on a log and just 12 say that, you know, this is what you've got to go I know that every indoc class that I address 13 say. 14 -- if I'm not out of time, I address all of them, 15 pilots and mechanics. I want them to know if the aircraft, if the crew, if everything is not in order 16 17 to take the flight, if it is -- if -- mechanic, don't be pressured into deciding that something is 18 off, or at least in the aircraft, that's not ready 19 for its release. Pilot, if you don't feel 20 comfortable taking this flight, nobody is going to 21 beat you up. 22 Nobody is going to require you to take 23 the flight. I may ask a million questions about it, but never take that -- that's exactly what I tell 24 25 them -- never take that as we're trying to pressure

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1	you. I want to understand why we didn't take this
2	flight, and if there is something that we can do to
3	overcome that. Is it training, is it having the
4	right aircraft, is it having the right equipment, et
5	cetera. So I tell every class that.
6	So when you have that, and then they tell
7	Chairman Hart that they never worked for a company
8	that stresses safety like we do, it made me feel
9	good. I hope that answers your question.
10	Q Something that you mentioned about a
11	flight being turned down. Is there always a debrief
12	of the pilot after a flight is turned down to
13	understand why?
14	A There is every flight that is turned
15	down, we get and I get an e-mail alert on it. It
16	may be weather. It may be maintenance. But it's
17	just a little short brief. And it may be that they
18	got into the flight and they got a chip light. I
19	mean, there's a hundred different reasons that can
20	come through. And when they do, some of them we go,
21	it's weather, okay, it's weather, what are you going
22	to do? Nothing can change that. And it may be bird
23	strikes. But there are some things you'll say, "I
24	want to look into this and understand it further."
25	So we do get alerts.
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	12
1	Q Who sends those alerts out?
2	A They come out automatically from the I
3	think the not sure. I think it comes from the
4	OCC, but I'm not positive of that. I get them two
5	ways. There's two when we have an FAA visit at
6	one of the field bases, I want to know immediately
7	what the findings are. We have another and that
8	comes from the field base. But the PAIP, I'm not
9	sure where it generates from. Might be it would
10	come through the 411, so it would be the pilot
11	itself.
12	Q So if a flight is turned down, the pilot
13	would go into the 411 system?
14	A Yes.
15	Q Do you visit the bases?
16	A All the time, frequently.
17	Q Have you been to the Frisco base?
18	A Have I been to the Frisco base? It's
19	been well, we have 300 bases, so it's been
20	it's probably been two years since I've been up to
21	Frisco. But the last base I was visiting was in the
22	Lamont-Osage the kind of western Missouri area.
23	And my next visits will be to San Antonio, and the
24	reason for the San Antonio visit is that we just
25	bought the program. It became Air Methods owned.

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1	So it's there is risk. And when you go from a
2	hospital-based operation to a alternate delivery
3	model base is just, is everybody onboard, or does
4	everybody know their positions. This is your
5	swim lanes may have changed a little bit. And we've
6	that has happened, and now you typically give it
7	a few weeks before I will go in and just sit with
8	everyone and I understand the concerns. So if they
9	have concerns and issues that we're having, we can
10	address them.
11	Q What are other reasons that you visit the
12	bases?
13	A Whenever I see some reason that might
14	come up on one of these reports, that maybe it's
15	time to go in there. It can be a variety of
16	reasons. If you see one that came to my
17	knowledge is one that came to mind was,
18	maintenance poked a hole in an airframe. So the
19	aircraft's out of service, but I want to understand
20	maintenance processes. How did this really happen.
21	Once again, it goes to that I may ask a million
22	questions on this. So I want to know what we can do
23	to prevent it. And so I've got my answers on that
24	one, so that will encourage me to go in. It may be
25	the regions will call and say I'd like you to come

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in and visit this area.

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Q What safety programs are in place at Air Methods?

4 Α Well, we have a number of them. Golly, if you're going to ask me what off the top of my head, 5 we've got the ERP. We have IEP, Internal Evaluation 6 7 That one is where we evaluate ourselves. Program. It was established primarily for our DOD contracts, 8 but it's expanded to everything. 9 It's not 10 specifically to the DOD bases. It's to all the 11 bases. So we have our Internal Evaluation Program. 12 We have our -- we have a program that is called ETQ. Now, that is tied to -- and I can give you more 13 14 detail than that because it's changing as we speak. 15 But it's analyzing our AIDMOR reports that come But we also have FOOA. I mentioned LOSA. 16 through. 17 We have LOSA Collaborative come in every two years and look at us. We have ASAP/MSAP programs, and 18 these are all voluntary programs that we work with 19 the FAA on to promote safety, is what it is at the 20 21 end of the day, without clobbering anybody. 22 Does Air Methods follow an SMS program? 0 23 Α We follow an SMS program, we do, I'm So that's the overarching over all our 24 sorry.

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safety management program.

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That's where we can

1 identify these safety risks, but all the others kind 2 of fold up into the safety management systems. Is there an SMS manual? 3 Ο There's an SMS manual that is --4 Α currently, it is Sheldon Barrett is the one that 5 oversees that. That will be -- it was Michael Koens 6 7 And so that is one of the positions that we before. are hiring for. 8 How many staff are in the safety 9 0 10 department? 11 Α We have six regional safety directors. We 12 have the two empty -- vacated spaces that we've mentioned. And we have the three current managers 13 14 downstairs, the FOQA manager, the ETO manager, and 15 the ASAP/MSAP manager. Then we have 156 field 16 safety representatives that are -- they are paid a 17 stipend to take that position. They have full-time 18 jobs, and typically they are either a lead mechanic or a lead pilot. But we expand that role and give 19 them a stipend for doing that job. 20 21 And what do they do specifically? Ο They're more related to the field bases 22 Α to -- so the issues that may come out, safety 23 notices that may come out, that they would convey 24 25 that to the staff. And then to inspect the local

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1	facilities to make sure they are maintaining the
2	standards, or the fuel systems, or aircraft, or
3	anything.
4	Q Is that an FAA requirement, or a
5	requirement of their SMS, or is that Air Methods?
6	A Air Methods.
7	Q Could you define ETQ?
8	A ETQ would it's kind of like defining
9	Ramco, our maintenance system. ETQ is just the name
10	of the and it does have a longer one. But this
11	is what we've developed. It is a commercial,
12	off-the-shelf program for you can use it for a
13	lot of different items. One of the things that we
14	do, as a corporation, is analyzing data. It just
15	takes so long to get through manually on a lot of
16	this data. We can have it come in, and then you
17	have to have the manual touch. And you did not know
18	if you were working on the priority topic. ETQ
19	allows us now to it puts it in the right buckets
20	for us, and this is and then you can say, okay,
21	in a bird strike, I can go right to bird strikes and
22	say this is an issue, and why am I having bird
23	strikes? We have bird strikes happening. Are they
24	happening at 400 feet or are they happening at 1,500
25	feet. You know, you can start analyzing this data.
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1	But before ETQ, we didn't we couldn't it took
2	time to get it in the right buckets.
3	Q Are you involved in the hiring of pilots
4	at all?
5	A No.
6	Q Do you interface with the FAA?
7	A I do.
8	Q What is your interaction with them, in
9	what aspects?
10	A ^ Dale Ogden do you guys know Dale
11	Ogden? We meet monthly. As a matter of fact, it's
12	next Friday that we're meeting. So we have what
13	we want to do, and I'll tell you, this is what we
14	collectively we want to hold hands, just not in
15	public, so everybody will see we're walking the same
16	going down the same path and have the same
17	objectives. So Dale and I want to align our
18	objectives. So I meet we try to do it quarterly,
19	but haven't. Then as good at that, but Wayne Fry
20	with region (sic). So probably two to three times a
21	year I'm meeting with Wayne Fry of region. And that
22	is just another one of those things to make sure
23	we're all aligned and we're all moving in the same
24	direction.
25	Q Aligned in aspects to what parts of the

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operation?

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A Well, if there are -- would they have concerns about what we're doing, what we're not doing, how we're doing it, and how do we want to go about achieving that. How do we want to get to the next level. It is -- we're bringing in simulator training, okay? How is the FAA going to be involved with our simulator training. So we want to make sure that they are involved in it, and to what level we're aligned on this, and on our processes and procedures.

Q Is the safety department responsible for accident investigation?

14 Α They are. The lead was Michael Koens. He 15 was the -- we had a go team that any time that we would have an accident, that they had their bags 16 17 packed, and I would give direction if I want them to And the safety department, Michael Koens 18 qo or not. Michael Benton at the OCC, he 19 was always the lead. also led the company, kind of. 20 I understand he's 21 working now for one of our customers. But he was 22 the other one. We had a two-man team, and if it was necessary, Don Lambert would be the third. 23 Don Lambert carries a lot of knowledge, a lot of 24 25 history. Don and I have known each other for a

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1	very, very, very long time, and Don has been very
2	instrumental in training Michael and Michael. And
3	so at this point, as you can imagine, we've had
4	Don is on the primary team, and as you know, Dennis
5	right now we will expand that, but that's what
б	we had to do in the event we had something and
7	needed a go team.
8	Q Who is the regional safety director for
9	the Frisco base?
10	A That would be I'll go look at my
11	Ben Grunyik.
12	Q Could you spell the last name?
13	A No, I cannot. I think it's
14	G-R-U-N-Y-I-K, something along those lines.
15	Q How were you notified of the accident?
16	A I am supposed to be one of the first
17	calls. I was probably about an hour delinquent
18	because of what I was doing that afternoon in my
19	backyard. And I looked at my phone after I set it
20	down outside, and I had about overstated I had
21	a lot of texts, e-mails, and missed calls, so I
22	called and found out and immediately dispatched the
23	go team.
24	Q Is that your responsibility, to dispatch
25	the go team?
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1	A For the emergency response plan, yes,
2	that's even not in the safety function but in the
3	aviation services function, that's what I do, yes.
4	Q And after dispatching the go team, have
5	you had what is your role now?
6	A Okay. We have typically, when the
7	they all have follow-up calls. So and typically,
8	I schedule a follow-up call for just a few hours
9	after they get there to get everybody there's a
10	small group of people that are on this call. So
11	they have a conference call, and typically there's
12	not much to report initially. But once they are
13	there, they can kind of get me a timeline as to when
14	they think that they would be able to get some
15	information to relay. So we have numerous
16	however many it takes. We'll have conference calls,
17	we'll have duties assigned. And then within the 30
18	to 45 days, we will have a follow-up meeting for
19	lessons learned.
20	Q If a pilot has a safety concern, or any
21	crew member, how would they go about reporting that?
22	A There's a hundred different ways. But
23	there are hotlines. There are several hotlines that
24	they can report them through. It depends on the
25	degree of the safety concern that they have. I think
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1	it's a very broad question that you just asked. If
2	it's a say if it's a I'm not comfortable
3	flying this aircraft, and I write it up in the
4	logbook, and I hope they do that. I don't think
5	that's what you're speaking about. But they come
6	through the safety department, go through their
7	regional safety representative or director, and they
8	can bring it in through the safety department, and
9	then it is we sit with the operations of the
10	maintenance side and say, okay, what are we going to
11	do about this? How do we fix this? Depending on
12	I mean, it's a very broad statement. There are a
13	lot of different ways which safety concerns can be
14	brought up, even to the point that this afternoon is
15	our monthly what we call our safety organization.
16	This is the SORT meeting, Aaron Todd chairs that.
17	The safety concerns that are on this list are
18	addressed with Aaron. And, I mean, it can be a
19	variety of things, and they do they come from
20	many different directions. So they are all put on
21	the table and assigned as appropriate.
22	Q Who's involved in the SORT meetings?
23	A Well, naturally, Aaron Todd. He chairs
24	it. So it's the CEO of the company. He chairs it,
25	I'm involved in it, the president of all the
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1 divisions. So you've got -- I'll hold it to that. You've got Mike Allen, you've got Jay Francis. 2 That is the president of Sundance. 3 And you've got Greg 4 Lundberg that's the president of Blue Hawaiian. Now, they will not be on today's because they are 5 the TOPS conference in San Diego, which is the 6 7 tourism safety conference. So it just happened that these intersected on the schedule. So they will get 8 the minutes from it. The safety department, you have 9 two representatives from the safety department that 10 11 will be there. You will have Dennis and Raj. Chris is out of town, but you have the certificate 12 management team that will be there. So there's a 13 14 broad range -- oh, and we'll also have legal there. 15 I always forget about them, sorry. But they will be there because it's good to have legal there to have 16 17 oversight of this. And these discussions will be had, and sometimes, just time permitting, we can't 18 If it's a critical item, it will go 19 get to them. But -- and some of them, they'll do that, 20 out. 21 that's okay, the next meeting I need a recommendation on this. 22 So that's the case. If a pilot wanted to submit or a crew 23 0 member wanted to submit a concern anonymously, how 24 25 would they do that?

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1 Α Through the safety hotline. So that's a phone system? 2 0 That's a phone system. 3 Α There's even a -there's just the company hotline that can be through 4 the phone or through e-mails. And that is -- that's 5 our internal audit. We've had some safety concerns 6 7 even come through that. And it's anonymous. You just hope there's enough meat there that they give 8 you without -- you know, they don't want to turn 9 So sometimes it's so vaque, you 10 themselves in. 11 can't even really investigate. So you have to go back through. And hopefully, you can drag more 12 information out. 13 Since the accident, has there been a 14 0 15 review of any of your safety programs, including these hotlines, for concerns related to the 16 17 hydraulic systems, specifically the dual hydraulic system? 18 Let me broaden that a little bit. 19 Α But there have been how information flows. 20 There has been a review, certainly, of how information flows 21 22 since this accident, and that process broadened. 23 In what way? 0 Because there's a lot of converging 24 Α 25 things that were coming together on this. Service

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1 bulletins, safety notices now go to -- safety 2 notices now go to the training departments as well How they made it to the field 3 as maintenance. 4 before was through the maintenance department. This was broadened to include the training department. 5 Service bulletins, they -- this was already 6 7 So the manufacturers, in this case converging. Airbus, one of the questions it had is about the --8 that we had, there's a service bulletin, and why 9 wasn't the service bulletin a little higher on the 10 11 list. But we have a -- in my opinion, a very good 12 process as we investigated that. The manufacturer signs if they're mandatory, if they're not. 13 And so 14 if they are mandatory, our engineering department 15 puts a higher priority on those, and those go through a -- the whole process of accountability for 16 -- does it apply to this aircraft, does it not apply 17to that aircraft, going ahead and getting the parts 18 on order, getting everything together. 19 This one was already being acted on, but it was not in the 20 21 priority pile because it was not a mandatory 22 bulletin. Then we find out, after we get into it, I 23

find out that we ordered kits. Kits were not available. Kits became available, but it took a

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1 little while, but they did a worldwide search, and the majority of the kits became available. 2 We had 19 aircraft that we wanted to do this bulletin on 3 4 after we got through the process. It did accelerate after this, I will say that, because in our list, it 5 just became mandatory, so it does accelerate, but 6 7 found they only had 16 kits after they came, but they would get the other three during the process. 8 Then we did do the first one, and we find 9 out that they did not have a proper rotocraft-like 10 11 manual supplement for the aircraft with this kit. 12 So we did the first one, and now we're grounding an aircraft because I've done this, and I don't have 13 14 the RFMS for the aircraft. So they gave us a special 15 service bulletin on that one aircraft. They went back through there, through ^ YASA, to get it 16 corrected, and have it done properly, and it has 17just been approved by the FAA. 18 So when a pilot or a crew member reports 19 0 a safety concern through the hotline, what is the 20 21 company's process? 22 Well, now it comes to me. There are a Α handful of people that will get the hotline notice. 23 Now, before, in my previous role as -- where safety 24 25 just reported to me, I was not on that. But Ed

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1 Stockenhausen was. He would receive it. He was 2 part of it. Now, since I'm just filling in for Ed, I will receive the hotline notice. 3 So that previously what was called the hotline items are 4 shared, whether they come through internal audit, 5 whether they come through safety, because they 6 7 balance one another. Investigations are done accordingly. You have -- Aaron gets a list of the 8 hotline notices. It's not that he is immediately 9 notified, but he needs to know what are the concerns 10 11 of the company. So the investigations then take place or 12 are assigned, and you have a report on the -- I've 13 14 just been trained in it -- on the network that you 15 go in, and you fill out the assignment and what the investigation revealed. And if it goes back to the 16 17 person that submitted it, so they're aware of what's qoing on. 18 19 If a pilot was to submit it anonymously, 0 is there a case number assigned --20 21 Α Yes, there is. 22 -- where they could follow up? Ο Yes, there is. There's a case number 23 Α assigned so they can go back and look. And thanks 24 25 for reminding me. These are previous ones that when

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1 I -- that's why I didn't know how to get them into 2 the system, but they were assigned -- I wasn't aware they were assigned -- when Ed was here. So they 3 4 were assigned, but they had to go to Ed to get it in the system, and now I've got to get them in the 5 Thank you. 6 system. 7 Just to clarify, since the accident have 0 any of the safety systems, the hotlines, has that 8 data been reviewed to determine if there were any 9 safety concerns about hydraulic checks that were 10 11 reported? None have been presented to me that I --12 Α they are not on the hotline. 13 14 0 So somebody did that review? 15 I can't answer that question. I haven't. Α But if they were, they would have come to me now, 16 17 and none have been brought to me, so I can't make an assumption. 18 And if there's a safety concern 19 0 identified through reports that you did or FOOA, how 20 were those concerns distributed to pilots? 21 Well, first, if there's a safety concern 22 Α that, say, I notice through my normal channels, 23 before we will relay them to pilots, mechanics, or 24 25 anyone, we do an investigation because I'll have a

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1 million questions that just come to mind. We have 2 AIDMOR reporting, where they report issues in there, and we have -- I do not review all the AIDMORs, and 3 4 that's -- they need for each queue to put them in the bucket. But we do have people that do read all 5 the AIDMOR reports. If I need to be made aware of 6 7 that, I am made aware of it. And then we will start an investigation into it. It may be an 8 investigation that we do from the field base. 9 We 10 may want to wrack it out to say call the regional aviation director and say here's an issue we want 11 12 you to wrack out. Sometimes we want the independents of the safety department to wrack it 13 14 out, depending on the level and what it is. And 15 it's the process that we have so it applies across the board. And then if we find something that is 16 17 detrimental, then we will do an internal engineering order, and that will go out, and we will resolve the 18 problems, if it's a mechanical issue, for instance, 19 and we will change whatever it is. 20 But we have the 21 process getting it out. 22

Q I'll do a hypothetical. You get safety concerns, you do your investigation, and you realize that pilots aren't following checklists. How would you get the information out to the pilots that this

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1 is a concern, we need you to follow policies and 2 procedures? What would be the means that you would go about getting that information to the pilots? 3 4 Α Well, now you're going to ask me from a senior vice president position is, I would go to 5 Dennis and Raj. And if it's on the air medical 6 7 side, we would say, okay, here's our discovery. Now, how do you want to get this out? And from 8 there, they would notify the regional aviation 9 directors and regional aviation managers, and they 10 11 would put it in 411 so there is immediate notification like that to all the pilots so that 12 when they sign in, they see this. This is an 13 immediate notification. 14 15 Are there newsletters that come out from 0 the safety department? 16 We have a safety connect that comes out. 17Α We would like to do it more frequent. Right now it's 18 And those items will be listed in the 19 quarterly. Aaron will do an article, I will do 20 safety connect. 21 an article. But it's whatever is prevalent today. 22 Do you recall what was prevalent in the 0 last newsletters? 23 I can go pull it up for you on 24 Α I cannot. 25 the Internet and Intranet. But it's -- I could not

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1	tell you.
2	Q Do you hold does your safety
3	department hold safety meetings with crew members?
4	A The regional safety each base has
5	their safety meetings, and the field safety reps,
6	and the regional safety directors will attend those.
7	Q How often are those held?
8	A Once again, I could not tell you. I've
9	walked into one base when it was being held. But
10	they are I couldn't tell you.
11	Q Okay. Is a pilot in jeopardy for
12	reporting any issues?
13	A No, not on my watch.
14	Q Does the safety department perform any
15	internal audits?
16	A Yeah. The internal evaluation process.
17	We inspect all the bases. I have a checklist by
18	which they go by and evaluate the bases to verify
19	that they are the bases are in compliance. Now,
20	do we go sit in the cockpit with the pilot? No, not
21	from the safety department. But as I mentioned, we
22	do have the LOSA Collaborative that every two years
23	we have. Now, quite honestly, if FOQA comes in, this
24	was LOSA will be able to get more data from FOQA,
25	now that we're starting that. So I do not know if I
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will continue LOSA. I'm not saying we will, I'm not saying we won't. But I want to see what we've got to start getting, what they will receive out of FOQA.

Q What do you look to gain by using LOSA Collaborative? What sort of information do they provide you in the audits?

Realtime, what's going on in the cockpit. 8 Α So they provide us with safety, they provide us with 9 what they -- what they believe would be improvements 10 11 to our system but just going out to the field base and seeing how our operation of the processes really 12 It's amazing what they come back with. 13 work. Once 14 again, it's plans data. I cannot put a name or the 15 pilot for any of it. All they have is the data for But they will fly with the pilot. 16 Now, it is me. 17 limited because in the single-engine aircraft they cannot fly up in the cockpit with the -- just to 18 walk into a base and go do this, as they do. 19 So it has to be twin-engine aircraft that -- because the 20 copilot seat has to be available, where they're not 21 available in the single-engine aircraft. 22 But they provide data that allows us to investigate and 23 adjust our procedures and processes. And the neat 24 25 part about this, if it does go into helicopters as

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it's done in the airlines, is airlines share this 1 data across the board. It's not united. 2 But right now it's just Air Methods. But they're trying to 3 expand this. So right now the data is just Air 4 Methods. There's no one else. 5 To clarify, prior to this accident on 6 0 7 July 3, you would not have received safety information notices or service bulletins? 8 And I won't receive them -- I 9 Α No, no. 10 typically would not receive them even yet because 11 they will be handed to me. I will not receive them, because now I'm more in -- have a direct line with 12 the safety department with people that are handling 13 14 that. They currently report directly to me. So in 15 that "Ed" position, I am getting this immediately from them. 16 17 So it comes to the people that report to 0 you, and then they give you -- they let you know? 18 19 Α Yes. Versus it comes to you directly? 20 0 21 Α That is correct. Do you think that they should come to you 22 0 directly? 23 I love them coming to my mailbox 24 Α 25 directly. I wouldn't have it any other way.

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1 0 Is that something that's in the works, 2 that you would be receiving them directly versus receiving them from people that report to you? 3 4 Α Probably not. And here's the reason. I get about 250 e-mails a day. 5 It's massive. It's too That's why I want the -- I want them to bring 6 much. 7 it to me directly and have the eye-to-eye contact because I've got it then. If it comes to my e-mail, 8 I have a chance of it being missed. 9 Are you involved at all in the assignment 10 0 11 of public relations events or the approval of them? Not at all. 12 Α I think that's all of my DR. WILSON: 13 14 questions for now. Thank you, Archie. BY DR. RODI: 15 When the accident happened, Michael 0 Benton, Michael Koens, and Don Lambert were assigned 16 17 to do the investigation, they arrived on scene, provided support? 18 Let me correct that just slightly. 19 Α 20 0 Sure. Michael Benton and Michael Koens were 21 Α 22 assigned to the investigation. Don Lambert was not immediately assigned. 23 Clarification accepted. Michael Benton 24 0 25 sent me an e-mail I want to say the end of July,

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34 1 first part of August, and expressed that he was 2 leaving. Why was he leaving? What was the reason for his departure? 3 That's Michael Benton. I 4 Α I do not know. can address Michael Koens, but I do not know why. 5 And so my next question was the reason 6 0 7 for Michael Koens's departure. Α Michael Koens wanted a career. 8 I'm the one that brought Michael Koens in from Rocky 9 Mountain when he came over, so he worked for me for 10 11 a long time in the repair station, then transferred to -- he ran the repair station over here. 12 Then he transferred to safety. And he did a lot of good 13 14 stuff. He went up, and we paid for it, but he 15 wanted to get educated on this side of the house. He put a lot of time and effort into it. But he was 16 17 landlocked. There was no place for him to go, and he wanted a career. He had several other companies 18 knock on his door, and he turned them down with 19 anticipation of being able to move up in Air 20 21 Methods. But that position -- Ed wanted that 22 position, and there was no place for him to qo. So when CALSTAR called, he just figured it's time for 23 him to make a move. 24

So there were three major departures from

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35 1 the safety department immediately following the accident, Ed, and the two Mikes. 2 Where --Now, Michael Benton was not in the safety 3 Α 4 department. He was not OCC. So it's two out of the safety department. 5 I appreciate that clarification. 6 0 Were 7 there any other departures from the safety department, downsizing or otherwise, immediately 8 following the accident? 9 10 There was the gentleman that ran the IEP Α 11 program. Ed suggested this person, the downsizing because -- his name's Scott -- it just escaped me. 12 But Scott, all of his work, he was outsourcing it to 13 14 a third party anyway. So Ed said that would be a 15 good -- if we were going to release one, that would 16 be a good release because we still have the 17 outsourced party that we can rely on to continue 18 that. There are two that were marginal -- these 19 are regional safety directors -- that were marginal 20 21 in their job performance that were released. Thev But as it related to aviation 22 were good people. 23 safety, their expertise was more clinical safety, was one, and one was Workman's Comp. So anytime it 24 25 had to do, which you probably know, a majority of

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the events in the safety department had to request aviation safety. They were having to pull from the other regional safety directors's expertise that had more aviation background.

Q Of the internal audits that are conducted from your safety department, are there external audits that you participate in on a quarterly, annual, semiannual, biannual basis?

As the -- we have the CARB audits, and 9 Α that's what all this IEP -- the IEP is focused 10 11 around what the CARB requirements are, but that is 12 applied to every facility that we have. So it is a We don't say, well, this base is a CARB audit. 13 14 CARB. This base is -- we apply the same audit. And 15 the safety department, our regional safety directors handle roughly 60 percent of those audits, and the 16 17 regional maintenance or regional aviation directors handle the other 40 percent. It's shared between 18 So those audits take place. 19 the two. Then we do the LOSA Collaborative, and I have -- do you know of 20 21 a company named ^ Aluminia, and they are a consultant that we had in here two years ago for a 22 full safety audit, and I have them coming back. 23 What about accreditations? Are there 24 0

accreditations that Air Methods will --

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37 1 Α We are CARB accredited. We are AAMS accredited on the medical side. 2 I hope we're FAA accredited. 3 If we're not, I've got a problem. Those 4 are the -- the CARB is the one we probably spend more time on that accreditation than any of the 5 others. 6 7 Are you aware during any of the safety 0 meetings that you've attended or been a part to, 8 been briefed on, prior to the accident, the safety 9 concerns with the Frisco base, the accident pilot, 10 11 the accident helicopter, or the medical crew? 12 Α None. You spoke about the flow of information 13 0 14 within your organization, and then the change you're 15 making specific to the service bulletins --That's made. 16 Α -- for the aircraft. Are there any other 170 safety actions that Air Methods has taken since the 18 accident? 19 One we mentioned, 411, is the placing of 20 Α 21 information immediately on 411 for me to -notification. 22 So to clarify, prior to the accident, 23 0 these safety information notification service 24 25 bulletins, were messages to pilots not placed on

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1	411?
2	A Not to my knowledge immediately.
3	Q So how was information then disseminated
4	to
5	A As I mentioned, it went a safety
6	information notice went through the maintenance,
7	then went up to the regions, to all the bases. And
8	depending on what it may or went from, the technical
9	pubs to the to the maintenance organization
10	I've forgotten what they called them. But then it
11	would go from there, disseminated to all the bases.
12	Q I understand. Thank you.
13	DR. RODI: That's all I have for you. BY
14	MR. SHIN:
15	Q Just to clarify, is the engineering
16	department within aviation services?
17	A We have yes. Just so that there's no
18	there are two engineering departments in this
19	company. One belongs to United Rotocraft, which is
20	we call them both engineering, but we don't want
21	to get them confused. We have the aviation services
22	engineering department.
23	Q And is your engineering services
24	department the department that receives service
25	bulletins?
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39 1 Α Yes. That's where the technical 2 publications reports are sent, to the engineering 3 department. Who in your department is involved 4 0 Okay. in the risk assessment for nonmandatory service 5 bulletin corporations? 6 7 Who in my department? Terrie Short, Α who's vice president of the engineering department, 8 she heads it up. What she has is a monthly meeting 9 with the certificate management team or their 10 11 designees as to -- and they will go through these nonmandatory and determine how they want to address 12 these. 13 14 0 Do you ever get involved in the risk 15 assessments for nonmandatory service bulletins? Α No. 16 Prior to the accident, were you aware of 170 any concerns within Air Methods regarding the dual 18 hydraulics system on the AS350 helicopter? 19 You said within Air Methods? 20 Α No. 21 Ο Yes. That's -- I'm trying to remember prior to 22 Α the accident. I don't believe I was. 23 And going back to when you discussed the 24 0 25 two regional directors were released, which regions,

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40 1 and was Frisco in one of these regions? Frisco was not in one of these regions. 2 Α It was Region 5 and Region 9. 3 Can you give us an idea of geographically 4 0 where they're located? 5 Region 5 would be Texas and Louisiana. 6 Α 7 Region 9 is Kentucky, Ohio, up in that area. MR. SHIN: That's all I have for now. 8 DR. WILSON: Matt? BY MR. RIGSBY: 9 10 So let me go at this right. 0 You meet 11 with ^ Dale Ogden, who's the manager of the Frisco area monthly, correct? 12 We make every effort. We're pretty 13 Yes. Α 14 good about it, actually. If he's not calling me, 15 I'm calling him. And this last one, I called him. 16 But it's pretty good. 17 And you describe it as a working 0 18 relationship, nonadversarial? Oh, not at all, zero. I would hope you 19 Α would ask him the same question because I wasn't 20 joking when I said I like him. Now, do we have 21 differences of opinions? Sure, we do. 22 But we -there's nothing that we haven't been able to work 23 through. 24 25 0 If you had a problem with a principal --

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1	A In a heartbeat, and he with me.
2	Q Okay. And then Wayne Fry is quarterly.
3	Wayne is up in Seattle?
4	A Yes.
5	Q Okay.
б	A We usually, just to clarify that and
7	broaden it, it was Wayne and Rick Domingo. Rick is
8	just so busy to get everyone together. So Wayne,
9	being one of his assistants, has taken that role and
10	has filled it quite well.
11	Q You'd just go at that as Wayne
12	A Yes, and yes.
13	Q Okay. Do you guys have the restricted
14	office have an inspector that comes here every day?
15	A Every day?
16	Q You know, his role is he's assigned to
17	
18	A I would venture to say they communicate
19	every day, but I don't know that he comes here every
20	day.
21	DR. RODI: Try not to step on each other
22	in talking. Did he answer your question, Matt?
23	MR. RIGSBY: Yes.
24	Q (By Mr. Rigsby) Has the FAA you
25	mentioned the safety meetings. Are those internal
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1	AMC only, or does Eric or Randy, or any of the other
2	
3	A No.
4	Q attend meetings?
5	A Some of those items could be, but the
6	safety department attends the monthly CMT meeting.
7	And so they are an integral part of the where we
8	have the 119ers and the CMT come together, and the
9	safety department's part of that. So that's how
10	that gets onto that agenda.
11	Q I believe you actually answered this, but
12	she just questioned as far as you said Terrie
13	Short of engineering, as part of the risk
14	assessments, that's where she brings the
15	certificate?
16	A That's correct.
17	Q Okay. And again, back to before the
18	accident, just to reiterate, you don't recall the
19	hydraulic systems coming up before as a safety
20	concern?
21	A Not to me. I can't answer for Ed
22	Stockenhausen as the vice president of safety. I
23	can only answer for the senior vice president of
24	aviation services at that time as being a concern in
25	Air Methods. Now, this was a concern industrywide
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1	after the PHI Albuquerque incident. So this was
2	something that was known and viewed and aware of and
3	addressed, et cetera.
4	Q What about pressure fuel systems?
5	A What about them?
6	Q Had that come up before the accident?
7	A Yes.
8	Q Was there any movement on that
9	A Yes.
10	Q as far as to incorporate?
11	A I'm sorry. Yes, and still is.
12	Q Does Dennis work for you? I mean, I'm
13	trying to understand the Dennis in the training
14	department. Are they under you?
15	A No.
16	Q The chief pilot would not be? He would
17	be under that same
18	A Correct.
19	Q Okay. Who is it that who was the
20	direct
21	A Mike Allen. Each certificate and I'll
22	go back a little bit. But each certificate reports
23	within their business unit. I'm sitting off to the
24	side with the shared services and safety, and with
25	oversight with those dotted lines and with the
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1 oversight in the event if there's something that we 2 need to address, it's not where you don't have a business that says we're not going to do this. 3 I'm sitting on the side saying yeah, we are. But I will 4 just tell you, that has never been an issue with 5 Mike Allen, or any of them for that matter, but the 6 7 majority of it, if it ever came to that. Before it even gets to it, Mike and I have generally discussed 8 it and go absolutely. 9 MR. RIGSBY: I'm done. 10 11 DR. WILSON: Seth? BY MR. BUTTNER: 12 You mentioned that now you fulfill Ed's 0 role; is that right? 13 Temporarily, until we hire the new 14 Α 15 person. So before, or now in your understanding 16 0 of this role, did Ed receive the service bulletins 17 and the service information notices? 18 I could not answer that. 19 Α Do you know, are they now in your role of 20 0 21 this job? 22 Α I'm not going to -- as you mentioned, I received them in a hard copy eye to eye. But if you 23 24 want --25 0 Whether it is or not?

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1	A Yes or no if Ed was on the distribution
2	list. I do not know for a fact.
3	Q Are you at all familiar with Airbus
4	Helicopters TIPI?
5	A We are. I'm familiar with TIPI.
б	Q Who's "we"?
7	A The engineering department and the
8	maintenance department.
9	Q So engineering and maintenance. How
10	about the pilots?
11	A I cannot answer that. I do not know if
12	they're familiar with TIPI.
13	MR. BUTTNER: That's all I have.
14	DR. WILSON: Ed?
15	BY MR. STENBY:
16	Q You mentioned a little bit ago when we
17	were talking about the mod that was available for
18	the aircraft, the challenges, in both acquiring
19	those parts and then once implementing the first
20	one, your finding out your aircraft was out of
21	service because it didn't have the proper supplement
22	included with it. Is that a problem that you
23	encounter frequently with safety-sensitive parts,
24	trying to get acquiring them and being able to
25	get them into the field? And if so, do you notice
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it more with a certain operator than others, or is that kind of a widespread problem?

It's a very broad question, and I'm going 3 Α to have to -- let me just reflect a moment. We don't 4 have many of these problems because we don't have 5 many of these issues to start with, other than what 6 7 we're speaking of today does not come every day. We have worked diligently with Airbus and their 8 performance is much better today than it has been in 9 10 the past as far as parts and the like. As a matter 11 of fact, when you just get to basic parts supply, Airbus now is one of the better ones out there. 12 Now, when you -- you're asking about this to me, it 13 14 was a huge surprise to me that a bulletin would come 15 out that we do not have the parts available for it. And then when we do it, we're having to tell the 16 17 manufacturer your documentation is not correct, to which the manufacturer initially argued with us on 18 And I would understand them taking that 19 it. position, then realized that there was a mistake in 20 there, and they're going, well, we're going to get 21 22 it fixed as fast as possible. Now, as fast as 23 possible is still too long. That's -- so, you know, it's a bit of a surprise. I did not like that. 24 As 25 an operator, if you -- once you get to the point, as

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1 I mentioned, this had been going on. You mentioned We're working on things for fuel cells, 2 fuel cells. but a different subject. So we were working on 3 expect if they're going to have 4 this. But when 2 a service bulletin that parts would be available to 5 affect this service bulletin with no delay. I would 6 7 expect the documentation to be right. Now, once again, this doesn't come up 8 So does it happen every time? 9 often. I can't answer it because it doesn't come up that often. So 10 11 I was -- I mean, I was probably a bit stressed, and the people within Airbus would probably know I was a 12 bit stressed because of the phone calls that were 13 14 immediately engaged in. It's not acceptable. And to 15 Airbus's credit, after we got everything worked out, 16 they -- there was no grass growing under their feet 17 to try to get resolution to this. But that was an 18 issue to me. And to date, of the 19 that were 19 0 initially identified that were targeted for this 20 modification, how many of those now have been --21 Only one, because just this week -- I'm 22 Α sorry, Friday of last week we received the 23 documentation. 24 25 0 Okay.

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1 Α So we've got to get it planned through, 2 all this planned through. Now, understand if Frisco had not have happened -- let's take Frisco out of 3 4 this -- we would have come upon this same issue anyway because we were going down the same track. 5 So take Frisco out of it. I would have still been 6 7 We would have all been upset because we've upset. got a service bulletin out there we cannot affect 8 because, although it's not a mandatory service 9 10 bulletin, it's things that we wanted to do. We went 11 through our process. We decided we wanted to do it, 12 and I was more concerned because they'll get the 13 parts for me, some way, somehow. But documentation 14 not being correct, that concerned me. 15 Thank you. That's all I MR. STENBY: have. 16 17 DR. WILSON: Any other follow-ups? BY MR. 18 SHIN: You had mentioned that after the PHI 19 0 accident in Albuquerque, that it was a known 20 industrywide problem, and that it was addressed. Can 21 22 you expand on your knowledge on how it was addressed in Air Methods? 23 The time it did is when the -- through 24 Α 25 the service bulletin that came out in getting, okay,

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1	how are we going to do this, and what's the process
2	by which we were doing it. Now, what Frisco did, it
3	did accelerate that. But it because we knew this
4	was an industry issue, we knew we wanted to do this.
5	We want to go apply this service bulletin. But it
6	did not it was not in the priority list because
7	it was not manufacturer didn't list it as a
8	priority.
9	Q Do you know of any other corrective
10	actions that were taken between the PHI accident and
11	the release of the service bulletin?
12	A I do not.
13	Q Okay. Are you aware of the Air Methods
14	incident
15	A Let me I believe what you will if
16	I'm answering your question, there was a 411 notice,
17	if that's what you're seeking. There was a 411
18	notice that went out concerning this, you know, use
19	the checklist, make sure you do it properly type, if
20	that's what you're seeking.
21	Q Are you aware of the Air Methods incident
22	in Temple, Texas of last year, involving a dual
23	hydraulics AS350?
24	A No.
25	MR. SHIN: That's all I have. BY MR.
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BUTTNER:

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Q I have one other follow-up to that. So were you aware of any changes or concerns with the checklist of yours or any of the pre-flight or --A We were made aware of checklist issues

through the LOSA Collaborative.

Q That was when?

A Oh. It was -- I'll have to go back and look, but it probably came -- it was the second quarter, probably May. I don't know an exact date. But the report came in the April/May time frame. The LOSA Collaborative had some items related to the checklist usage. As you mentioned, this is all twin-engine aircraft. But these are things that we take and apply across the board globally. So the LOSA Collaborative did issue some concerns there.

Q So you're saying you weren't notified about any checklists involving the AS15 model or -is it twin engine, or...

A No. I may have been not following you. But it's -- not that I'm aware.

22 MR. BUTTNER: Okay. BY MR. RIGSBY: 23 Q Does Airbus have a tech rep assigned 24 specifically for you guys?

A They had a tech rep specifically

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1	assigned, and they will have again. The one they
2	had assigned quite honestly was maybe a little weak
3	on some areas for a company this size. He has he
4	retired.
5	Q At one time you guys had an ODA?
6	A We do.
7	Q Do you still have the ODA?
8	A Yes.
9	Q Okay.
10	DR. WILSON: What is an ODA?
11	MR. RIGSBY: Sorry. Organizational
12	design approval.
13	A It's our FAA wing where we can approve
14	STCs and other items on behalf of the FAA.
15	Primarily, we use it for STCs approval.
16	Q (By Mr. Rigsby) Is that one avenue that
17	you-all are considering going down?
18	A No. Let me I can address all those,
19	but the ODA is not going to be going in that
20	direction. The ODA was assigned to United
21	Rotocraft, and that's why I mentioned about the two
22	engineering departments. They were assigned the UR.
23	It is still assigned to UR, but it reports to my
24	to have separation of duties. We didn't. And I
25	really don't think the FAA wanted it where it was
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1 all contained over here. And I'm not saying anybody would do anything inappropriate. But if you have 2 separation of church and state there, when 3 4 engineering is finished, they throw it over to the ODA, now that belongs to me. 5 And we will then say yea or nay and throw it back. So we wanted to make 6 7 sure that everything that was coming into our operational organization would have all the proper 8 documentation and all proper certifications 9 10 associated with it that would be satisfactory to us, and thus the ODA reports to Terrie Short and her 11 Don Lambert has for some time been 12 organization. involved with Robertson, who was developing a 13 14 crashworthy tank for the AS350. They have 15 contracted with Vector to be the distributor. They're working with a STC holder. We are providing 16 17 the AS350 tuned to Vector, which is an Airbus company, a VEMD. That's the one they wanted. We 18 will be providing that aircraft to them for 19 utilization and further development and completion 20 of the development of this STC for the crashworthy 21 So Air Methods is right in the middle of it 22 tank. 23 with Vector and Robertson. As we speak, they have given me a -- you know, it's going to be a first 24 25 quarter. They want it announced by HAI that they

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1 have it. Now, there's a lot of things that get in 2 the way yet. But if they had to pick a date, it would be February 16 that they would have the tank 3 4 approved. I mean, that's how close we are to this, 5 and knowing what's going on. We have pricing from We have how we can go about it to what the 6 them. 7 process would be to change out all of our tanks. But this is not an overnight event. I don't want 8 anyone to think that this is wave a magic wand, but 9 we are right in the middle of it. 10 It's about a 11 10-and-a-half million dollar proposal for Air 12 Methods, the proposition as it speaks right now, which is huge. 13 14 DR. WILSON: Any other questions? BY MR. STENBY: 15 How many aircraft would be encompassed in 16 Ο 17 How many A stars are -that? Α Well, it's more than AStar. You've got 18 the AS350 B2, B3, and the C130 B4 that all would be 19 under this. And so we have roughly 150 of those. 20 21 And we're talking also on our tourism side the number of -- we sit over here on the side. 22 In this, we're not just looking at it as air medical 23 We're looking at the whole company. 24 services. So 25 this is something that we would implement across the

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1	board. And this was in process before Frisco, just
2	so would we be doing this if Frisco had not taken
3	place? And the answer is yes. BY DR. WILSON:
4	Q Did you know Pat?
5	A I did not.
6	Q The checklist issue that you mentioned
7	from the LOSA audit, what was the checklist issue?
8	A I can be because it's not my
9	expertise, but they had a percentage of observations
10	where the checklist was not fully utilized. Now,
11	understand when the checklist is not fully utilized,
12	it can mean a variety of things from everything
13	from pre-start checklist, to in-flight checklist, to
14	approach checklist. There are numerous checklists,
15	and they put all those into one bucket. And to be
16	more specific would be difficult.
17	Q Do you get specific data, though, from
18	LOSA, where you could go back and find out if it's a
19	specific portion of the checklist?
20	A I have they name those, but they don't
21	give you know, 7 percent of the time it was this,
22	you know. They'll just put it all into one lump
23	sum, that you had X percentage, and I too have the
24	on file the LOSA Collaborative study that they
25	presented to us.
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1	Q And you mentioned that it was second
2	quarter, April or May?
3	A I believe that's I mean, that's what I
4	recall. I'd have to go back and look to be
5	Q 2015?
6	A Yes.
7	Q Okay. Thank you. Is there anything else
8	that you think we need to know for the
9	investigation, or anything that you think may help
10	us?
11	A I think we probably covered it. I can't
12	even remember all the questions. Thank you.
13	Q Thank you, and you have our business
14	cards, so please don't hesitate to reach out to us
15	if you've got any questions.
16	A I will do that. Thank you very much.
17	DR. WILSON: Off the record.
18	(The meeting concluded at 12:26 p.m. on
19	October 23, 2015.)
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21	
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Willard Gray

DATE: 10-23-15

I hereby certify that the attached transcription of page 1 to 56 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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## NATIONAL TRANSPORTATION SAFETY BOARD

	*	
INVESTIGATIVE INTERVIEW	*	Docket No.:
RE FRISCO, COLORADO	*	CEN15MA290-91489
ACCIDENT THAT OCCURRED ON	*	
JULY 3, 2015	*	
	_	

INTERVIEW OF: RAJ HELWEG

Friday, October 23, 2015

1:24 p.m.

------

Air Methods 7211 South Peoria Street Englewood, Colorado 80112 From the NTSB:

KATHERINE A. WILSON, Ph.D. JENNIFER S. RODI, Ph.D. CHIHOON SHIN

From the FAA:

MATTHEW RIGSBY

From Airbus:

SETH D. BUTTNER ED STENBY

Representing Air Methods:

COREY J. WRIGHT, ESQ.

	3
1	PROCEEDINGS
2	DR. RODI: So just to remind or
3	reiterate, the purpose of our interview and
4	discussion today is in the interest of safety and in
5	the advancement of the accident investigation that
6	we're conducting into the July 3, 2015 Frisco,
7	Colorado helicopter accident. We are not here to
8	assign fault, blame, or liability through the
9	interviews or through any portion of our accident
10	investigation. I cannot guarantee any
11	confidentiality or immunity from anything that you
12	share with us today or that we discuss. A
13	transcript of our conversation will be in the public
14	docket at the close of the accident investigation.
15	You can have one representative. Who do you choose?
16	MR. HELWEG: Corey.
17	DR. RODI: Excellent.
18	And as a reminder, you cannot testify or
19	answer any questions for him today.
20	MR. WRIGHT: Understood.
21	DR. RODI: So we've kind of done an
22	informal introduction of everybody who's in the
23	room. Do you need me to go through and remind you
24	who everybody is and what their role is.
25	MR. HELWEG: The only one I don't know
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1	who is is Cheech.
2	MR. SHIN: I'm Cheech. I work with the
3	NTSB in their aviation engineering division for
4	helicopters.
5	MR. HELWEG: Great, thanks. Other than
б	that, I'm familiar with who everybody else is.
7	DR. RODI: Excellent. So the people in
8	the room include NTSB employees in addition to party
9	members and technical liaisons through the
10	accredited representative process that's granted
11	through the NX13 of IKO. Any questions about their
12	participation or their role in the accident
13	investigation or the interviews today.
14	MR. HELWEG: No, ma'am.
15	DR. RODI: Okay. Do you understand the
16	accident investigation process the NTSB conducts?
17	MR. HELWEG: Are you referring to the
18	party system?
19	DR. RODI: The party system is a portion
20	of it, but just the accident investigation in
21	general.
22	MR. HELWEG: You know, I think that
23	highlighting it wouldn't hurt me.
24	DR. RODI: Okay, perfect. So we are an
25	independent federal agency that is tasked by
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1	Congress to conduct investigations into
2	transportation accidents, and specifically all
3	aviation accidents and incidents that we deem
4	necessary. We have three pillars of responsibility
5	to determine the facts and circumstances surrounding
6	the accident, establish a probable cause, and
7	prevent those accidents from happening again in the
8	future if at all possible through different actions,
9	outreach, recommendations, safety results, and
10	safety accomplishments.
11	MR. HELWEG: Okay, great.
12	DR. RODI: Any other questions?
13	MR. HELWEG: No, ma'am.
14	DR. RODI: Excellent. So when we ask you
15	questions, clearly don't nod your head yes or no
16	because it's difficult for him to capture that for
17	the record. Yes or no is perfect. If you don't
18	understand a question, we'll be more than happy to
19	repeat it or clarify it. If you don't know, it's
20	okay to tell us you don't know.
21	MR. HELWEG: Okay.
22	DR. RODI: Dr. Wilson will lead the
23	interview today. She'll ask you the questions, and
24	then we'll open it up to the rest of the room for
25	any follow-up or elaboration.

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1		MR. HELWEG: Great.
2		DR. RODI: Questions?
3		DR. RODI: No, ma'am.
4		DR. RODI: Okay. We can get started.
5		BY DR. WILSON:
6	Q	Is it okay if I call you Raj?
7	А	Absolutely.
8	Q	Okay. On behalf of the NTSB, let me
9	extend our	condolences on the loss of one of your
10	colleagues	in this accident.
11	А	Thank you.
12	Q	If you could, for the record, please
13	state your	full name.
14	А	My full name is Rajesh Helweg.
15	Q	Could you spell that?
16	А	R-A-J-E-S-H, H-E-L-W-E-G.
17	Q	And your position at Air Methods?
18	А	I'm the chief pilot for Air Methods.
19	Q	How long have you been in that position?
20	А	I was I came in as an interim chief
21	pilot in Ma	ay of 2014, and I've been the permanent
22	chief pilot	since October of 2014.
23	Q	Okay. And what did you do prior to
24	coming to A	Air Methods?
25	А	Prior to coming to Air Methods? Well, I
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1	was a regional aviation director prior to becoming
2	the chief pilot for Air Methods. And prior to that
3	I was with Omni Flight Helicopters as a 135
4	check-in.
5	Q And when were you hired at Air Methods?
6	A I was hired during the acquisition of
7	Omni Flight in July of 2011.
8	Q Okay. As the chief pilot, what are your
9	duties and responsibilities?
10	A My duties and responsibilities are safe
11	operations from the pilot's standpoint. Basically,
12	everything that has to do with pilot training, and
13	while somebody is behind the controls of the
14	aircraft, they fall under my jurisdiction.
15	Q And who do you report to?
16	A I report to Mike Allen.
17	Q Who is?
18	A The president of Domestic Air Medical
19	Services.
20	Q Okay. Are you a pilot?
21	A Yes.
22	Q What do you fly, or what have you flown?
23	A I've flown Bell products, the Bell 206
24	JetRanger, LongRanger series. I've had a small
25	amount of time on a 407. I fly the AS350 series
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1	Eurocopter products. I've flown Sikorsky aircraft
2	in the Gulf of Mexico, S-76s and S-92s.
3	Q And about what's your total time?
4	A Oh, and Robinson R22 helicopters and
5	R44s, sorry. My total time is probably right around
6	5,000 hours.
7	Q All rotocraft?
8	A With the exception of a small amount of
9	fixed wing time when I went through my civilian
10	training. It was appropriate to do your instrument
11	rating in a fixed-wing aircraft and then transfer
12	that to a helicopter. So that's really all I have.
13	Q About what percentage of that time is EMS
14	hours?
15	A I would say probably to include my
16	duties as a 135 check airman in an EMS operation? 2
17	A Probably 2,500 hours, so about half of
18	it.
19	Q Okay. Do you still fly?
20	A I do.
21	Q What is your currency requirement for the
22	company? What do they require that you fly?
23	A What does the company require that I fly?
24	Q Yes.
25	A Well, the company doesn't require I fly.
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1	The federal aviation regulations require that I
2	remain current.
3	Q Yes.
4	A In an aircraft. However, they don't
5	necessarily define the interpretation of currency.
6	So I remain current per Part 91 regulations of three
7	takeoffs and landings per quarter, but I do better
8	than that.
9	Q Okay. What do you fly when you maintain
10	your currency?
11	A I either fly a well, I fly a rotocraft
12	helicopter to maintain my currency. So I either go
13	out to Front Range, and I'll fly with one of our
14	AS350 check airmen, or maybe as of lately I've
15	been we made a fairly large purchase of Bell 407
16	aircraft, so I've been flying a little bit more of
17	that, but always with somebody, with a dull guy
18	or
19	Q Okay. Are you current right now in a
20	350?
21	A Iam.
22	Q Okay.
23	A For passenger carriage or okay.
24	Q I'm not looking for that specific.
25	A Okay.
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1	Q Just trying to determine your recency
2	experience with the 350.
3	A Okay.
4	Q Do you fly the B3e?
5	A No.
6	Q Do you get out to the various bases?
7	A I do.
8	Q How often do you do that?
9	A It depends. I probably get about maybe 6
10	to 8 trips to the regions, and during those trips
11	I'll make it a point to go and visit a base. But
12	understand that I've also been in my position only
13	about a year or so permanently. So the first six
14	months of that was traveling back and forth to the
15	region I was living and working in. And so a lot of
16	things happen around here, so it can be hard to get
17	away, but I do.
18	Q Have you visited the Frisco base?
19	A I have.
20	Q Prior to the accident?
21	A No.
22	Q What was the purpose of your visit after
23	the accident?
24	A After the accident we went up to the
25	Frisco base to basically do a barometer check of
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1 where everybody was at because, you know, there was a lot of people sort of speculating on things. 2 So Dennis and I basically just went up there to check 3 in with our pilots, check in with the crew members, 4 and make sure that -- find out where they were at, 5 kind of did a barometer check of it, see the scene, 6 7 see what happened. Who's in charge of the Frisco base on a 8 0 more day-to-day operations? 9 Is there a base lead 10 or... 11 Α There's base lead pilots, but the person who would be in charge of that base on a day-to-day 12 basis, it would be the program aviation manager, and 13 14 his name is Rod Ballick, in terms of an operational 15 manager, frontline. Okay. Did you know the NX pilot? 16 Ο I did. 17 Α Had you ever flown with him? 18 0 19 Α I had not, no. 20 Did he ever express any concerns to you 0 21 about flying helicopters or being at the Frisco 22 base? 23 Α No, ma'am. When's the last time you saw him before 24 0 25 the accident?

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12 1 Α I would say between two weeks and a month before the accident. 2 Was it on a professional basis, or did 3 0 you ever see him outside of --4 I never saw him outside of work. 5 Α It was always on a professional basis. 6 7 Did you ever hear anybody mention 0 Okay. any concerns about his flying or his capabilities as 8 a pilot? 9 As a matter of fact, he always got 10 Α No. 11 rave reviews. Have you reviewed his pilot record since 12 0 the accident? 13 I review -- I review pilot records on a 14 Α 15 reqular basis. I did look at his after the accident because they helped tell a story for me. That, to 16 17 me, is the purpose of the records. So I did look through them, yes. 18 Did anything stand out? 19 0 20 Α No. 21 When you say that people gave rave 0 reviews about him, what were some of the things that 22 they would say? 23 The best, really, is one that we would 24 Α 25 hear on a regular basis. He had the ability to

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1	instill confidence. He was a very good
2	communicator.
3	Q Okay.
4	A Everyone always felt safe with him.
5	Things that chief pilots like to hear about their
6	pilots.
7	Q Right. How involved are you in pilot
8	training on a leave it at that. How involved are
9	you in pilot training?
10	A Well, I guess if you could qualify that
11	question. Do I actually give check rides and train
12	on a regular basis? The answer to that is no. Do I
13	make decisions and help guide the training
14	department in particular directions? The answer to
15	that is yes.
16	Q Okay. What training do the pilots
17	receive, starting from a new hire, let's assume?
18	What do they receive, what kind of training?
19	A Well, what the pilots receive is, they
20	receive an initial indoctrination training. And
21	once they've gone through the initial indoctrination
22	training, then they receive an aircraft initial
23	ground school training. And once they get through
24	the ground school training I shouldn't say get
25	through. But once they receive that ground school
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14 1 training, they receive their flight training, which consists of a certain amount of day time and a 2 certain amount of night time. 3 4 0 Okay. Does Air Methods utilize any simulators for training? 5 At this point, we do, only for the EC135 6 Α 7 aircraft that we fly, and that simulator is based down in Dallas/Fort Worth at the flight safety 8 facility. We have some advanced aviation training 9 10 devices that we use, and we use those for two 11 things. One is, we have a cadre of gentlemen, 12 current trainers in many respects, that drive those simulators around in a trailer and help people on 13 sort of a semiannual basis with their inadvertent 14 15 IMC capabilities. And then we also use one that's at our facility here at Vaughn Way. We have one in 16 17 a room, and we'll do some inadvertent IMC training with our initial new hires. 18 Are you involved in pilot hiring at all, 19 0 so just the training side? 20 21

A Well, I'm involved to a degree in pilot hiring. What we do is, we get every single resume that comes through the agency goes to my e-mail box. So that's to that. But I don't interview pilots on a regular basis. We tend to have approximately --

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1	between 20 and 30 new pilot applicants per month.
2	So you can imagine that if I focused on that, that
3	would be all I did.
4	Q Who reports to you?
5	A Who reports directly to me?
6	Q Yes.
7	A The assistant chief pilots, the records
8	specialists, and the aviation training coordinators,
9	and the AATD trainers.
10	Q How many assistant chief pilots are
11	there?
12	A Four.
13	Q How are they divided up?
14	A They're divided up per airframe, four air
15	frames. So and one focuses on indoc, and the
16	ground curriculum associated with indoc.
17	Q How many different type aircraft do
18	you-all fly?
19	A On any given day, it can change. But
20	including all variants, I believe we have
21	approximately 27, which is inclusive of the variants
22	that we have. So an AS350 could have four different
23	variants. But I believe in terms of total
24	certificated model type, it's probably around 18, 17
25	or 18.
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	16
1	Q Okay.
2	A I would have to make sure I knew that.
3	Q This is a quiz to see
4	A I understand.
5	Q Any idea how many B3es you've got?
6	A You know, the only one that we had was
7	the one up in Frisco, to my knowledge.
8	Q Do you know how long Air Methods had been
9	operating that helicopter?
10	A I don't.
11	Q Do you know how many pilots were
12	qualified to fly it?
13	A I don't specifically know. I know,
14	obviously, all the pilots at the Frisco base were
15	qualified, and then a they had an exchange
16	program with the lower elevation bases that flew for
17	Flight For Life Colorado so that they could get some
18	mountain time and vice versa. So I would say at
19	least probably 10.
20	Q Okay. Are you familiar with the dual
21	hydraulic system on the 350?
22	A I'm familiar with the AS350 dual
23	hydraulic aircraft.
24	Q Okay. Are you familiar with the
25	checklist?
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17 1 Α When you say familiar, do I have it Is that what you're asking? 2 memorized? But if I was to show it to you, you 3 0 No. 4 would recognize it? Absolutely. 5 Α 6 0 Okay. 7 The expanded checklist, or the regular Α checklist? 8 Well, talk to me about that. 9 0 So what do 10 pilots use? Well, you know, pilots have a checklist 11 Α for the variant that they're in. And then there are 12 certain checks that happen based on the variant, and 13 depending on their familiarity with the checks, 14 15 there's a portion of the checklist that directs them to do an expanded checklist if they need further 16 17 detail, the rotoflight manual if they need to. So the expanded checklist items could be 18 0 memorized? 19 They could be memorized, yes. 20 Α 21 Ο Does Air Methods have a policy on that, whether they prefer that they refer to the 22 checklists versus memorizing them? 23 We want that checklist to be Α No. 24 25 available to them, and we want to encourage their

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1	use if they need to.
2	Q And that's available in each helicopter,
3	versus a pilot bringing that checklist to the
4	helicopter?
5	A Yes, for that variant.
б	Q Right. Do you ever observe the indoc or
7	ground training?
8	A I do. I sat through 407 ground school
9	here just last week. I spend time with the indoc
10	people, and I do sit through modules of the indoc on
11	a regular basis, yes.
12	Q Is career resource management trained?
13	A Career resource management is trained
14	here in indoc, yes.
15	Q What topics are covered under CRM?
16	A Communication is always a big one that's
17	covered. Attitudes, the eye on safe acronyms. You
18	know, a lot of the general CRM, you know, bullet
19	points that are covered under most CRM courses are,
20	yes.
21	Q How is training determined to be adequate
22	or working?
23	A Well, that's a great question because
24	when we're dealing with a ship this big, sometimes
25	it's hard to make sure that everybody's on the same
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page. But the one thing that we do is -- and if I may, I'd like to just kind of take your question one step further.

Okay.

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So I think that the best thing -- the 5 Α best way to answer that question is with a question, 6 7 which is, how do we standardize? Because that's sort of what I think you're getting at. And what we do 8 is, we bring the ACEs, which is what we refer to as 9 our check airmen, out here annually, and we bring 10 11 them in for a two-day talk with myself and Dennis 12 McCall, Mike Allen and those guys. So we get everybody in the room together so we can ask -- we 13 14 can clear up all the myths that may be happening, 15 So that's one thing, and also present okay? That's one way we do it. 16 expectations.

Each assistant chief pilot is required to have a monthly fleet call for their particular fleet that has a topic raised by the lead ACE for that airframe, and that's one way that we keep those standardized.

I have a weekly meeting with the assistant chief pilots where we talk about everything from failure rates to passing rates to -to, you know, making sure that we clear everything

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1	up. So I think that it's I don't actually have a
2	demand a spreadsheet of monthly failures, but
3	that's kind of that's sort of how I communicate
4	with the department. What we do have, though, is a
5	series of bus stops, so to speak. So if a pilot is
6	taking a percentage more than they might normally
7	take, then the assistant chief pilot gets involved
8	with the aviation compliance evaluator. And if it's
9	going to take more than that, then I get involved to
10	find out can we make this individual successful, can
11	we not, what kind of behaviors are they exhibiting
12	that's making them not successful, et cetera.
13	Q Are there any areas of training that seem
14	to be more difficult for pilots than others?
15	A Understand that we get pilots from the
16	whole spectrum. So we get military pilots that are
17	extremely competent in heavy aircraft and system
18	management. We get civilian pilots that are very
19	good at, you know, quick thought and stick and
20	rudder control and getting along at the base. So to
21	pinpoint out any one particular aspect that our
22	pilots generally have problems with, no.
23	Q Okay. How do trainees provide feedback
24	about the training that they received?
25	A Well, we have a survey that we send out
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1 after the initial indoc to find a gauge where we 2 were at and we were to proceed. During that indoc process -- and indoc is the time when I can teach 3 4 the most pilots at once, right, and kind of set the stage for expectations? You know, I hand out my 5 business card to every single one of them, just like 6 7 That's my cell phone number on it, I did with you. and they're all welcome to call me if they have any 8 problems and need more time or they need help. 9 So that's more an open-door policy when it comes to 10 11 their feedback directly to my office. There are certain -- I think I get the feedback mostly from 12 the check airmen because the pilots tend to just 13 kind of bow their head and kind of try and press 14 15 forward. Since the accident, have there been any discussions regarding changes to either the training 16 or the procedures 17

A Well, there's the service bulletin that obviously Airbus has put out. You know, in terms of changes as a result of the accident, or discussion?

21 Q Discussion about any changes that may be 22 needed.

A There's been some discussion specifically about possibly control checks and hover checks prior to emphasizing those requirements in the GLM.

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There's been some discussion with the assistant 1 chief pilots about putting together a mountain 2 course, which may help people with high altitude, 3 separating myths from reality type of thing. 4 Currently, our customers that operate in the 5 mountainous regions sometimes have additional 6 7 So I'd like to figure out a way that requirements. we can give a course in lieu of those requirements. 8 Do you receive safety information notices 9 0 and service bulletins? 10 Currently I do. 11 Α Prior to July 3? 12 0 Prior to July 3, they went through the 13 Α 14 engineering department. A lady by the name of 15 Sandra McKinney would receive those notices from the different manufacturers, and she would disseminate 16 17 them as needed to us. If she saw something that was 18 important, it would come to us, or it would go to engineering. Depending on the nature of the safety 19 information that was issued, it would be sent up our 20 21 way. If she thought they were relevant, or all 22 0 of them? 23 You know, she's not a subject matter 24 Α 25 expert, so I would never -- she never withheld any

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23 1 that I know of because she didn't think they were 2 relevant. What is the process now for you receiving 3 0 those notices and bulletins? 4 Well, the flood gates are open now. So 5 Α the new process is that they get disseminated now to 6 7 the entire certificate management team or the 119 team, and then -- so that if we see something that 8 catches our eye -- actually, there's more of a 9 10 process than that. It's not just a matter of oh, by 11 the way. So they get reviewed by a committee that consists of aviation compliance and the assistant 12 chief pilots to determine what's an important aspect 13 14 that we need to address immediately. The safety information notice that 15 0 Okay. was distributed in August of last year for the 16 17 hydraulics, were you aware of that? Did you receive 18 that one? I don't remember exactly the time that it 19 Α hit my mailbox, but yes, I am familiar with it, and 20 I have received it. 21 Before the accident? 22 0 23 Α Yes. Okay. Do you recall if any action was 24 0 25 taken based on receiving that?

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1	A This safety information notice for the
2	dual hydraulic aircraft, I was out reviewing the
3	exact one. Yeah, this is the one. So what we do
4	is, we utilize this, and we incorporated this into
5	our differences training from the single hydraulic
6	aircraft to the dual hydraulic aircraft.
7	Q Have you taken that differences training?
8	A I have taught the differences training,
9	for the B3e model, but and that was I don't
10	remember the last time I gave that training, but it
11	was probably two years ago.
12	Q Okay.
13	A So yes, and yes.
14	Q Are these notices distributed to pilots?
15	A They're not withheld from the pilots. So
16	when we do utilize this, and when I gave the
17	differences training, it was before this safety
18	information notice was given out. But we we're
19	very transparent with our curriculums. So any pilot
20	can ask for our curriculum, and we'll be happy to
21	put it on a thumb drive or share that information
22	with them. So we'll utilize it, we'll review it
23	with them, we'll use it, and if they want a copy to
24	take home, they get a copy to take home.
25	Q Is there a method for distributing it
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without being asked?

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A Well, there is. Unfortunately, it's not a -- we don't have an actual process that this gets out to every pilot. When we come up with something like this that needs attention, what we'll do is, since our check airmen really only see people once a year, and the regional aviation director or the operational control manager for that region that has these aircraft under his purview, we'll distribute it through them to say, hey, listen, make sure this gets out to all your AS350 B3 captains, which is the way -- you know, it's a cascade approach of information dissemination.

Q So how would you know if a pilot actually received the information?

Well, you know, that's the -- one of the 16 Α 17 challenges of our industry, because we're so far widespread that we're required -- we're reliant on 18 e-mail to distribute information like this. So, you 19 know, aside from a read received, which in some 20 cases could cause a regional aviation director to 21 22 have 128 e-mails bounce back at him, if they all read it appropriately, you know, just the hope that 23 they actually open up their e-mails, which is 24 25 actually a requirement of their job. But we truly

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1	have no way of knowing whether or not they read it
2	or not.
3	Q The differences training, is that a
4	one-time only training, or is that something that
5	the pilots receive on a recurrent basis?
6	A They're given the differences training
7	one time.
8	Q So if a pilot went through differences
9	training prior to this notice coming out, which you
10	mentioned was at this differences training, how
11	would they know about the information that was in
12	here?
13	A You know, if we when we get a notice
14	like this, they would be this information would
15	be shared with them if they're recurrent training,
16	so on an annual basis. If we did not already set
17	that up through the regional aviation directors to
18	distribute it to the rest of their group that fall
19	under their purview.
20	Q Are there any company newsletters that go
21	out to pilots that might share safety concerns or
22	safety issues that have been identified?
23	A There's a safety connect that goes out,
24	and there's a this week at AMC, because that's
25	not really a safety concern. And then the last ACE

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conference -- and understand, this is my first one 1 that I've been through with them. 2 You know, we had some recurring themes that were coming that could 3 cause confusion in terms of just some very small 4 specific information. And what we're looking to do 5 right now, we had just had a conversation about it 6 7 as early as yesterday during my assistant chief pilot call, is to have a training quarterly go out, 8 that sort of addresses some of these, and maybe it 9 lists some of these things that would be 10 11 appropriate. Are you involved in the decision to 12 0 approve public relations flights or events? 13 14 Α I'm not, no. 15 Prior to a flight, is a pilot required to 0 perform a risk assessment? 16 17 Yes. Α For every flight? 18 0 19 Α Yes, ma'am. What's involved in that decision-making? 20 0 21 I assume you have a copy of our risk Α assessment matrix form? 22 I have not even seen it. 23 0 Well, that would be what's involved in 24 Α 25 that, and that would be something that -- it's in

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1 their general operations manual. And basically, there are two sections of it. 2 There's a static section, and then there's a dynamic section. And 3 the static section is designed so that they can kind 4 of fill that out at the beginning of a shift. 5 They know kind of all the static issues that are 6 7 happening with that aircraft, and then the dynamic issue, which maybe has to do with changing ceilings, 8 distances, crew members, et cetera. 9 10 And it's a paper-based form that they 0 11 complete? 12 Α Currently, yeah, because we're working towards an electronic one to meet the April 22 13 14 requirement of the FAA rule. How would you describe the safety culture 15 0 at Air Methods? 16 17 You know, I believe that safety is in the Α 18 front of our mind. I think that safety has to start Although, we use the iceberg 19 from the top. principle that safety is everyone's responsibility. 20 And if there's no foundation for it, the iceberg's 21 22 obviously going to turn over. My message to the pilots, whenever I see them or whenever I can 23 interact with them, is they're our frontline risk 24 25 managers, and that they need to be thinking about

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that every single time they walk down the stairs out 1 of their Gelco, or whatever they're doing. 2 So I think the safety culture at Air Methods has been 3 4 qood. We've got a robust reporting system. We use 5 a system of just culture. We don't ever penalize anybody for bringing up a safety concern. 6 We 7 absolutely support people for conservative decision-making. We're always trying to encurrently 8 a more robust safety culture, I will tell you that. 9 10 Tell me more about the reporting systems. 0 11 Α Well, we have -- are you familiar with 12 SMS? Yes. 13 Q 14 Α Well, an SMS system is basically sort of 15 a constantly reporting process, right? In which you need to have certain different avenues for people to 16 17 report different concerns, whether they be a minor safety concern, to something that requires anonymity 18 and have a feedback loop on the backside of that in 19 order for that person to seek closure as to what 20 21 they reported, whether it be anonymous or not. 22 So we have a very general reporting system called the AIDMOR system, which basically any 23 mechanic, pilot, corporate member, anybody, medical 24 25 crew member, can utilize to report anything, whether

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1	it be a turnaround for weather, or a something
2	that they just don't feel is right. Something to
3	get to take it straight up to a manager maybe.
4	We have the ASAP, we have the MSAP
5	program, which are sort of combined safety reporting
6	programs and also self-reporting programs. We have
7	global compliance, which is a silent whistle program
8	which respects anonymity. We have an open-door
9	policy, right? Which is basically you know, we
10	sort of resemble the culture that the CEO has put
11	down, which means that nobody will ever be penalized
12	for reporting a safety concern to anyone.
13	Q What is your involvement in the
14	investigation of those safety concerns that are
15	reported?
16	A Well, I personally sit on the event
17	review committee for the ASAP. And when I don't
18	I think you guys met Bill Harper this morning, he's
19	my alternate for that. So I see every single ASAP
20	report that comes through here, and I vote on it as
21	an impartial party with the union and with the FAA.
22	I get every single AIDMOR that comes through my
23	e-mail box, right, which is sometimes I can push
24	a hundred on a weekend. If there's an item from the
25	silent whistle or from the global compliance
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31 1 hotline, very often I'm asked to investigate a portion, if not all of it, by either the DP, the 2 3 director, or the acting DP. Is that a data mined, to look for trends 4 0 5 in safety concerns? It is. Our AIDMOR process is a bit 6 Α 7 antiquated at this point, where we have a gentleman who specializes in capturing data. Unfortunately, 8 he's reliant on the body of the description to my 9 10 data out of, right? So it's garbage in, garbage out 11 principle, right? It's only as good as what he can 12 But for the past year or so, they've been read. working on a better program through ETT, or we can 13 use box checking, and it will actually mine certain 14 15 bits of information out for him before he even gets to that. 16 So if a safety issue was identified based 17 0 on this information, how would that be communicated 18 to the pilots? 19 Based on what information? 20 Α 21 So if you're looking at this data mining, 0 and it's not garbage in, so you get something useful 22 out of it, how is that -- if a safety issue is 23 identified, how would that be communicated to the 24 25 pilots?

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1	A Well, there's different levels of safety
2	concerns, right? I would say that, you know, you've
3	got sort of base level, you've got regional level,
4	then you've got a global level that they may fall
5	into. And what we'll do is, we'll determine at what
6	level that concern is at, and we'll address it right
7	at that level. So maybe it has to do with a heater
8	in an aircraft, let's just say. Then, obviously,
9	that's something that we need to that needs to be
10	sort of a two-prong approach, right? We need to fix
11	the problem, which we do immediately, and we need to
12	send out a blast, probably through safety connect,
13	or possibly a 411 announcement. Are you guys
14	familiar with what 411 is?
15	Q Yes.
16	A Possibly a 411 announcement to bring it
17	to everybody's attention to be aware that this may
18	be happening elsewhere.
19	Q Okay. Are you aware of any safety
20	concerns or issues that were brought up pertaining
21	to hydraulic checks or the dual hydraulic system?
22	A So I think it's important probably to
23	determine a factual report from a safety concern.
24	But a factual report can be a safety concern for me,
25	right? So somebody bringing up a safety concern
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1 regarding them, no. But I have had a couple of factual reports through the AIDMOR reporting system 2 about people that began to lift their helicopter 3 with the hydraulic isolation switch on the 4 collective in the wrong position, yes. 5 Do you know about how many of those 6 0 7 factual reports there have been? I think about two. And I believe one of 8 Α them happened before I was even the chief pilot. 9 However, it was -- I believe it was in the region 10 11 that I was overseeing. I don't remember the exact date, but it was in the region that I was working. 12 Were those two prior to this accident? 13 0 14 Α Yes, ma'am. 15 Since the accident, have you had -- maybe 0 16 not through AIDMOR or one of those systems, but have 17 you heard of more discussions of that, pilots saying that that has happened to them? 18 I have not, no. What I have heard after 19 Α the accident were the same as what I had heard 20 21 before the accident. So it's not as if nobody talked about it after the accident. 22 It was just they were the ones that I was aware of previously. 23 Okay. There weren't new incidents that 24 0 25 occurred?

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34 1 Α Not to my knowledge, no. What is the feedback process to a pilot 2 0 3 or a crew member who may report something to AIDMOR or the hotline or one of the other reporting 4 5 systems? Well, the hotline has an automatic 6 Α 7 feedback report, and that actually goes through independent parties to protect anonymity. 8 The feedback process, in terms of the AIDMOR, is based 9 on, like I said earlier, whether it's kind of a 10 11 required report, whether they have an issue that we need to sort of have for our own information, or 12 whether or not they're raising a safety concern, in 13 14 which case we'll usually go back through the 15 operational control management regional vice president for that region, or if it seems like 16 17 something where the operational control manager or 18 the regional vice president is part of the problem, then we'll go directly to the individual. 19 We'll reach out directly to them. 20 21 In terms of the ASAP program, there's obviously a feedback loop that comes through the 22 FAA, as well as depending on the nature of what 23 they've done and what we're dealing with, we may 24 25 call them and speak to them directly about it. But

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1	they'll get a conclusion on their problem. The
2	AIDMOR system, like I said, it's a little bit more
3	it's not quite as specific as to sometimes the
4	difference between what's a safety concern and
5	what's for information.
6	Q What would be the purpose of somebody
7	reporting something for information?
8	A So that we maybe can see trends, for
9	instance. Would you like an example?
10	Q Sure.
11	A Maybe we have a base in a particular part
12	of the country that we see regular weather aborts
13	within a short amount of time, right? Well, what
14	will happen is in situations like that is that
15	based on the people that read it, the assistant
16	chief pilots, myself, and Dennis McCall, or the
17	safety department that will fly this and say,
18	listen, something's wrong here, because these guys
19	are continually taking off in bad weather, and
20	they're having to turn around. So what is it? And
21	then we'll start an investigation based on that.
22	And it could be anything from hazardous attitudes at
23	the entire group, to maybe they don't have the
24	weather reporting they need. And then we'll be able
25	to identify those problems and go in and figure out
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1	how to fix them.
2	Q How were you informed about the accident?
3	A Well, I was called by the OCC.
4	Q And what did you do after receiving the
5	call?
6	A Well, I was riding down the North Platte
7	River Trail with my wife. And as soon as I was
8	done, we pulled over and parked, and I called Dennis
9	McCall.
10	Q Are you a part of initiating the
11	emergency response plan?
12	A I have specific roles and responsibility
13	in the emergency response plan, yes.
14	Q What are those?
15	A You know, without the checklist in front
16	of me, which is what we sort of carry in our back
17	pockets all the time, but it has to do with
18	notification of my team, and sequestering the
19	records, and making sure that everything is we
20	stop everything at that moment, and then getting on
21	a phone call with the rest of them and letting them
22	know that I've done that.
23	DR. WILSON: I think that's all the
24	questions that I have for now, Raj. Thank you.
25	Jennifer?
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1	BY DR. RODI:
2	Q Were you aware, prior to the accident, of
3	any safety concerns with the Frisco base?
4	A The only safety concern that I was aware
5	of with the Frisco base was that they had a they
6	have a hangar, and the hangar has a pillar that goes
7	down the center of it. So that they have two
8	basically fire kind of fire engine doors on
9	either side of it. And at one time the mechanic was
10	and this is one of the human factors he was in
11	a rush, and he pushed the helicopter with the
12	heliporter out into that beam. And that was brought
13	up to the attention of the vice president at the
14	time, and they put in some other reminders and some
15	safety items because they couldn't change that door
16	out based on the design of the hangar.
17	Q Were you aware prior to the accident of
18	any certain concerns with the pilot?
19	A No, ma'am.
20	Q And during your monthly lead calls, did
21	they ever discuss dual hydraulics for the AS350?
22	A You know, to be honest with you, I don't
23	participate in the monthly fleet calls. So I
24	participate in the weekly assistant chief pilot
25	calls, and those fleet calls are theirs. So aside
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from that, no.

Q Can you describe to me your interaction with the FAA and the quality event relationship, the frequency of that relationship?

A I would say that I'm in communication with our POI, or one of his assistants, on a weekly basis. The quality is good. We have a cooperative relationship, and we basically get the job done.

Q With regards to risk assessment, how is weather rated in that risk assessment process?

A You're asking me how the risk assessment is memorized, and I don't personally fill it out on a daily basis. So how is weather rated on our risk assessment? I mean, what numbers? I do know that there's mitigating factors associated with it. I know the question is to me, but Ed's probably the best one to answer that right off the bat.

18 MR. STENBY: Can you ask the question19 once again?

20 Q (By Ms. Rodi) Just the weight of the 21 weather in the risk assessment.

A For that particular day, I wouldn't characterize it as high. I mean, there are certain ones that are a higher risk number for low ceilings and reduced visibility. I've seen conditions -- and

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1	none of those existed that day. There was some
2	turbulence and some of that, maybe a distance flight
3	and stuff like that that would have raised it to a
4	moderate amount.
5	Q Does the risk assessment process vary by
6	make and model of helicopter?
7	A No.
8	DR. RODI: Those are all the questions I
9	have. Thank you.
10	BY MR. SHIN:
11	Q Raj, have you flown dual hydraulic AS350
12	helicopters?
13	A I have.
14	Q Do you have any concerns with the level
15	of complexity in understanding the takeoff
16	hydraulics checks for the dual hydraulics AS350s?
17	A I would not do it currently without
18	utilizing the expanded checklist. However, at a
19	time probably a year and a half or two years ago, I
20	had no problems with the complexity in that
21	airframe.
22	Q Prior to the accident, have your pilots
23	reported any concerns with the pre-takeoff
24	hydraulics checks for the dual hydraulics AS350s?
25	A Only the two that I mentioned previously,

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1	which were that I was aware of. Other than that,
2	no.
3	Q And are you aware of the
4	A Actually, you said prior to the accident?
5	Q Yes.
6	A Yeah. The answer to that would be no.
7	Q Are you aware of the PHI accident?
8	Albuquerque?
9	A I am, yes.
10	Q Okay. Are you aware of the Air Methods
11	Temple, Texas incident involving an AS350 B3 with
12	dual hydraulics?
13	A I'm aware of it, yeah. It was a hard
14	landing. But I did not study that accident in that,
15	either one.
16	Q How often do you communicate with I
17	should say prior to the accident, how often did you
18	communicate with the then director of safety on I
19	guess investigations involving Air Methods and NTSB?
20	A Regarding ongoing investigations and
21	NTSB, not very often. Seldom, if any.
22	MR. SHIN: That's all I have for now.
23	DR. WILSON: Matt?
24	BY MR. RIGSBY:
25	Q Raj, what does the transition training
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consist of?

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Well, it depends on what you're 2 Α transitioning from and what you're transitioning to. 3 Let's just say the B3 to the B3e. 4 0 Well, one of our lead AS350 check airmen 5 Α at the time developed a matrix. And what that 6 7 matrix is, is it's basically a flow chart. If you're going from one aircraft to the other, you can match 8 those up, and then it will give you a series of 9 numbers, and then the code is at the bottom as to 10 11 what you'll do. It may be if you're going from a fairly simple aircraft to something -- to a complex 12 variant, it may require a flight, or it may require 13 14 just a run up, or it may require just a briefing. 15 So it would vary model to model? 0 Well, it varies variant to variant. 16 Α 17 My question was, it varies model to 0 model. 18 We have a matrix that is specific to what 19 Α variant you're coming from, and you are trained into 20 21 what variant you are going to. And then you line those up and it will tell you exactly how to do that 22 differences training. And I want to make sure that 23 we're clear on the difference between differences 24 25 training and transition training. Differences

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1	training would be the same model aircraft that's a
2	variant. Transition training would be from one model
3	to a different model aircraft. For instance, an
4	AS350 to a Bell 407.
5	Q Okay. And what Mr. Mahany would have had
6	would be differences training?
7	A That's correct.
8	Q Do you guys have general hiring minimums
9	as far as flight time and that type of thing?
10	A We do.
11	Q What are they?
12	A We require 2,000 hours. Our night
13	requirement is a hundred hours of night time, IFR
14	rating, instrument rating, commercial pilot rating.
15	And then it varies on for the VFR aircraft, for the
16	single pilot IFR aircraft, and for the fixed-wing
17	aircraft. I'd be happy to get you the exact I
18	could lay those out for you if you want. I guess we
19	could.
20	Q And as I recall from the new HA rule, are
21	they is instrument training at a minimum, are
22	these required to keep them current as well?
23	A No. However, they're going to be
24	required to have an instrument rating. Prior to the
25	HA rule, they weren't actually required to have an
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1 instrument rating, so now they're required to have 2 that, of which we have two, and one has threatened to retire prior to that rule going into effect. 3 The medical crew members that are not 4 0 employees of Air Methods, an example, this case, the 5 Frisco case, do they have access to that same 6 7 reporting system that an Air Methods employee would have access to; do you know? 8 I don't believe so. I don't believe so. 9 Α 10 However, I'd like -- and I'm embarrassed to answer 11 it that way because -- but what I will say is from a culture standpoint, it has mostly been pilot center 12 reported because of operational concerns or 13 14 operational issues. So the pilot generally reports 15 up through that system. There are separate reporting systems that are specific to the medical 16 17 crew members through TAMA. Some of our HBS 18 customers utilize those systems as well. But scenarios in the AIDMOR system, I have yet to see an 19 AIDMOR come up through an HBS customer. 20 But I can't 21 tell you for sure yes or no. 22 Okay. 0 I don't believe so. 23 Α And even though they're employees of a 24 0 25 hospital, do you guys give them the AMRM, or CRM

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1	AMRN, Paramedical Resource Management Training, or
2	Resource Management Training?
3	A Well, in order to be a functional crew
4	member onboard an aircraft, you still need to go
5	through the crew member training portion of our
6	pilot training program.
7	Q Is there a time requirement that your
8	pilots, whether it be written down or word of mouth,
9	how long Air Methods wants them to stay on the
10	ground before they take off, or to get off the
11	ground on an air medical flight?
12	A Are you saying a minimum or a maximum?
13	Q I'm talking about I guess a maximum time.
14	A No, sir, not from my office, no. And
15	there's not a minimum time either. However, that's
16	a good idea.
17	Q Stuck pedals training. Could you
18	describe that? For an AS350, how would you or
19	have you trained stuck pedals?
20	A Stuck pedals are a very interesting item
21	to train because and part of the reason why I
22	find it an interesting subject to train is, there's
23	any I mean, there's any number of ways that an
24	aircraft can be can get in a stuck pedal
25	situation. It can be a loss of thrust, or a loss of
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1 the anti-torque system. It can be something that is 2 wedged in your pedals. I mean, there's a ton of So the reality is, is that to actually get 3 them. somebody proficient at hitting all of those marks, I 4 mean, we spend a lot of time based on the amount 5 that that actually would happen to somebody. 6 7 However, it's always important to brief what's going on in stuck pedals and to actually give them a 8 scenario to see how they react to it. However, we 9 10 can replicate an emergency so well that we crash the 11 helicopter, right? So we also need to be cognizant of that. So that's where the simulators will be 12 very helpful because we can stick them in different 13 14 configurations and get different problems with them. 15 So that's usually left up to ensure that our pilot has an idea of . 16 My last question would be, can you, in 17 0 your chair, demonstrate how you would do a takeoff 18 I mean, just kind of walk us through 19 in an AS350? 20 the procedures? 21 Α Well, I quess that doesn't make sense to 22 So, I mean, do you want a full startup me. 23 procedure? Do you go through the checklist and you 24 0 25 start to come up on the collective? Do you --

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1 Α Well, let me tell you -- so I taught civilian aviation for a long time, and I never 2 taught anything that I didn't practice on my own, 3 4 okay? So one thing that's extremely important in my opinion when you're picking up an aircraft into a 5 hover is, you're picking it up to prepare for two 6 7 One is that if you're on a slope, so you're things. using very little collective, and you're reacting to 8 the aircraft. The other one is, you're checking 9 your control inputs throughout the entire process of 10 11 lifting an aircraft up into a hover. And then the third thing is that once you're in the hover, you 12 are then doing another control check to make sure 13 14 that your aircraft is flying appropriately. 15 So you would bring the aircraft up to a 0 hover momentarily, and then before continuing to 16 17 take off, most likely? Α I would, yes. So it's very, very slow 18 And sometimes that happens 19 movements, correct? quicker, so it's a little bit -- see how it reacts a 20 little bit, see how it reacts, adjust the reaction. 21 You know, my opinion of flying any aircraft, whether 22 it's a clockwise or counterclockwise, or an aircraft 23 with both on it is, is that -- Ed probably 24 25 understands what I'm talking about, or whoever else

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1	is a helicopter pilot in this room understands what
2	I'm talking about. But if you understand the basics
3	of control, and you keep your eyes where they're
4	supposed to be, your reactions are natural. Is that
5	a fair thing to say?
б	Q Absolutely.
7	DR. WILSON: Seth?
8	BY MR. BUTTNER:
9	Q Raj, so who did your job before you?
10	A Scott Tisch.
11	Q Did he know the pilot?
12	A I would have to ask him that.
13	Q How long was he in that role? 2 from
14	what I understand.
15	Q Okay. You did not fly with the pilot; is
16	that correct?
17	A That's correct.
18	Q So do you know or do you know who would
19	know if the pilot had received that service
20	bulletin?
21	A Do I know who would know if the pilot
22	received that?
23	Q Do you know if the pilot had received
24	that?
25	A I don't know if the pilot had received
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1	that. I would my considering the pilot had
2	gone through a recurrent training course, in which
3	this information was probably disseminated, the
4	answer, if I may, would be I would hope he would
5	have received this. However, like I said, things
6	get depending on whether he received it prior to
7	the safety notice, or as a recurrent training prior
8	to the notice coming out or not, would have been
9	relative to whether or not he read his e-mails.
10	Q Do you know if all the pilots have it
11	now?
12	A All of the currently, all of the
13	pilots that fly dual hydraulic aircraft and AS350s
14	do have a copy of that. They're sure that they had
15	it. However, some haven't and read it. So
16	understand, that's a qualification there.
17	Q Okay. And have you seen the risk
18	assessment for this flight, the accident flight
19	we're talking about?
20	A You know what, I have not.
21	Q Would there be a risk assessment for
22	charity flights like this, and not just business
23	lodge flights?
24	A For PR flights?
25	Q Yes.
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1	A Yes, there should be.
2	Q Are you familiar with TIPI?
3	A Iam.
4	Q When did you become familiar with that?
5	A Well, we as a regional aviation
6	director, I was in charge of a region that was
7	predominantly AS350s. So one of the things that we
8	struggled with was making sure that our flight
9	manuals were up to date. So when I became regional
10	aviation director, I thought that's pretty important
11	stuff. So I got a key copter log in so I was able
12	to ensure that all of the bases, per serial number,
13	had up-to-date flight indexes.
14	Q So you have access to TIPI then; is that
15	right?
16	A I do. But I don't understand how TIPI's
17	relevant here because the key copter is what's
18	actually the key copter portion of it, or the
19	actual flight manual portion of it's what's relevant
20	because that's the FAA approved portion. The TIPI
21	is one that we caution people against because, you
22	know, if you also approve something, and then you
23	guys put it your copter puts it into TIPI, we
24	don't want to create any sort of confusion between
25	what's published on the TIPI site versus what's
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50 1 published on the FAA approved portion of the key 2 copter site. Because you know that would come out on 3 0 that, right? 4 You know, I didn't pull this off of TIPI. 5 Α So the TIPI is generally something that we would let 6 7 the maintenance people determine whether or not something was not -- you know, getting people into 8 that key copter to be able to put that information 9 off of there to ensure that their flight manual is 10 11 appropriate is one thing. Opening up the door to the entire EASA approval, make sure of the safety 12 information notices is another thing. 13 We don't withhold that information from them. 14 But we have to 15 be fairly careful because some of that TIPI 16 information is not FAA approved. Or would you 17 disagree with that? No comment on that area. 18 0 19 Α Okay. 20 And then were you or are you -- maybe you 0 answered this earlier and I didn't write it down 21 22 correctly. But were you or are you a part of any kind of checklist provisions or changes or --23 Α Yes. 24 25 Ο What committee, or what part of your job

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1 does that? 2 Α Well, ensuring the pilot has an appropriate checklist to be able to do their job I 3 4 believe is my job. So I believe that a piece of my job is to ensure that they have the right tools to 5 be able to do their job. So in terms of what part 6 7 of that committee or how I might interact with them, I would say that I should take responsibility 8 entirely of that committee. 9 That's all I have. 10 MR. BUTTNER: 11 DR. WILSON: Okay. Ed? BY STANDY: 12 I only have one question for you. It's in 13 0 14 regards to communication, not necessarily in regards 15 to any of these service notices or anything. But just with the size of Air Methods, I imagine 16 17 communication is a challenge, and I'm wondering --Α Sounds like you work for Air Methods. 18 I'm wondering how you ensure that your 19 0 message gets out to the line pilots and what your 20 21 confidence is that your message is received and 22 interpreted in the manner you intended. Well, you know, I think that's a work in 23 Α progress, Ed, to be honest with you. Prior to me 24 25 becoming the chief pilot, they didn't have fleet

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1 calls on a monthly basis with the check airmen. They didn't have weekly meetings with the assistant 2 They didn't -- you know, the chief 3 chief pilots. 4 pilot may or may not have participated or didn't participate in the event review committee. 5 So the approach that I've taken is to put all of these 6 7 practices in place, and to -- that speak to the end user, which is the person that's going to touch them 8 and develop those relationships. 9 So I communicate to the assistant chief pilot to then make sure that 10 11 -- so that we're all on the same page, and then they communicate to the check airmen, and then at least 12 the check airmen have relationships with those 13 14 pilots at the bases so that they can disseminate 15 that information fairly quickly. And a lot of them have close relationships with them. 16 17 And then Part B to that is through the 18 regional aviation directors, and if we had information that needs to get out and get out 19 quickly, we'll go straight to them because they're 20 21 the ones that usually get their e-mails read. And 22 we put important payroll information in the subject 23 line so that they open that. 24 MR. STENBY: Thank you. 25 BY MR. BUTTNER:

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1	Q I have one follow-up question.
2	A Yes, sir.
3	Q For the recurrent training the pilots
4	receive, with there being variants of the AS350
5	model, do they receive recurrent training in one
6	variant and then receive a differences training, or
7	how is it
8	A They don't receive a recurrent
9	differences training. They get the differences
10	training during their initial, and then they receive
11	the training in whatever airframe that we have at
12	the Front Range facility. So we don't use their
13	actual base aircraft or the variant that they have.
14	And then generally there's a review of the variant
15	they have orally.
16	Q Okay.
17	MR. BUTTNER: That's it.
18	BY DR. RODI:
19	Q I have just one follow-up. Matt was
20	asking you about the takeoff and establishing a
21	stabilized hover, if you will, before the pilot
22	would initiate any sort of alternative or change in
23	direction to proceed on course. So can you quantify
24	that for me, how many seconds, milliseconds you
25	think that that stabilized hover would be before
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moving forward once you've established flight control continuity?

A Enough time for a qualified individual to interpret the power settings of the aircraft and determine whether or not they needed to utilize ground effect to initiate that takeoff.

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## So five seconds?

A So I would say -- yeah, yeah, a few seconds to establish control of the aircraft, check the parameters of the aircraft, and if they need to use ground effect, maybe lower the aircraft down to light on the skids again before they take off, or take off from that position, literally good to go, or I guess I need to use this.

Q Sure. To add on to that question something that has been discussed here in the course of the investigation is a corkscrew takeoff and whether it may or may not be standard practice at certain bases. Do you know what the corkscrew takeoff is, and is that an improved departure procedure for Air Methods?

A I can only speculate as to what a corkscrew departure is. I will tell you that we do not -- I don't condone trickery to get an aircraft to perform better. That's not in any standard

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1	operating procedure that I would say is appropriate
2	for anywhere in this country.
3	Q And is there a specific departure
4	procedure that is trained for or recommended out of
5	Frisco given the terrain?
6	A Not that I know of. Again, the aircraft
7	needs to perform in Frisco the way that it performs,
8	you know, in Florida, based on the same power
9	margins. So anything that potentially was a
10	standard practice there due to the altitude is not
11	something that I was privy to.
12	DR. RODI: Thank you.
13	BY DR. WILSON:
14	Q A few follow-ups. Okay. So Cheech was
15	asking you about the differences training and then
16	the recurrent training.
17	A Okay.
18	Q So looking back at Pat's flight time over
19	the last month, he flew two different aircraft, two
20	different helicopters. If we only had one B3e and
21	he was flying a different helicopter.
22	A Right.
23	Q So he would have had differences training
24	potentially for
25	A The B3e and what he was flying, or he may
ļ	I contraction of the second

56 1 have -- the one that he was flying may have been the 2 primary aircraft, and he was given differences training in the B3e, which is what I believe it was. 3 So when it come time for recurrent 4 0 5 training, what aircraft is he being trained on in recurrent? 6 7 Α Currently, we do our recurrent training at the Front Range facility, and we have a -- we 8 have a 2B3, and we have a 2B1 single hydraulics B3, 9 10 before Pat was there. We currently have a dual hydraulics B3, and we have a B2 out there. 11 So it 12 could have been any one of those three. And then we would have given him a -- we would have spoken with 13 him about the differences between that and his basic 14 15 flight. Does Air Methods train as a best 16 Okav. 0 17 practice to lift off to a hover? Α We train a hover check, yes, and not a 18 19 corkscrew. So the answer is yes, sorry. When would that be trained, or when would 20 0 21 that be discussed in training? That would be discussed prior to a 22 Α maximum performance takeoff, because if you're doing 23 just a normal takeoff, you would already have done 24 25 that hover check prior to initiating the takeoff

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1	rule. So that would be discussed during the maximum
2	performance takeoff.
3	Q Is it documented anywhere?
4	A No.
5	Q Okay. You mentioned that the medical
6	crew members will come to Air Methods for some
7	training?
8	A They don't come to Air Methods.
9	Oftentimes that training is done in the field by the
10	program aviation manager or regional aviation
11	manager, or a check in.
12	Q At the base?
13	A That's correct.
14	Q And what does that training involve?
15	A That's basically the our pilot
16	training program has a crew member training piece of
17	it, and do you understand what crew member
18	training is?
19	Q I don't understand what you mean by "Do I
20	understand."
21	A Okay.
22	Q So why don't you explain to me what
23	A In order for an individual to be a crew
24	member and not a passenger, for instance, which is
25	what we all were when you guys flew here today, you
ļ	I contraction of the second

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1	were passengers, right? So you had to be briefed on
2	something. Well, you had somebody brief you, and
3	that briefing wasn't given by the pilot. That
4	briefing was given by the flight attendant, right?
5	Well, that person had to go through training in
б	order to be able to deliver that briefing.
7	Q Yes.
8	A So in order for our crews to not be
9	passengers and act as functional crew members, they
10	need to go through that training from a certificate
11	standpoint of the pilot training program.
12	Q Okay. And so my question then would be,
13	what's included in that training?
14	A I would have to get the flight training
15	program out and open up the crew member training
16	portion so that you could review that.
17	Q Okay.
18	A There's general things, seat belt uses
19	briefing, there's an NGB portion of this, so that
20	the pilot can do secondary set of eyes on the
21	aircraft at night, those types of things. But if
22	you want specifics and time requirements, you would
23	need to refer to that.
24	Q Okay. You said Scott Tisch was in your
25	position prior to you?
I	

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1	A Correct.
2	Q Did he leave the company?
3	A He did.
4	Q Do you know why?
5	A To be a director of operations at
6	CALSTAR.
7	Q What is the turnover of pilots at the
8	bases?
9	A You know what, I just looked at it. We
10	currently have about 1300 pilots, and we train
11	probably 250 a year. So that will give you kind of
12	an idea without giving you the impact ratio.
13	Q Is there a particular base that sees more
14	turnover than others?
15	A There are, yes. Those tend to be the
16	remote commuter bases that see those more than
17	others. A lot of times people will use those as a
18	feeder base into the company because those are the
19	ones that have openings, so they'll use that.
20	They'll work at that base for 18 months, and then
21	they'll move to another one, so then we have to
22	train a new pilot for that. You know, that's
23	another piece of our safety culture that we watch.
24	If we have a particular program that seems to have a
25	high turnover in pilots, maybe we'll send a safety

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60 1 person down there to take a look at the program to make sure that there's -- everything is going okay. 2 Any concerns about pilot turnover at the 3 0 Frisco base? 4 As a matter of fact, I think there's 5 Α No. pretty good fights to get into the Frisco base 6 7 because people stay there for quite some time. And then just to clarify your role 8 0 Okav. in the approval of checklists and training -- or I 9 10 guess to clarify, what your role is in changes to 11 checklists and training. Are you at the approval level, or are you making decisions specifically 12 about what should be changed or included in 13 14 training? 15 I'm in a visionary role when it comes to Α So what I do is, you know, whether 16 checklists. 17 you're operating almost 20 aircraft and 20 variants of aircraft, you can't be a subject matter in every 18 single one of them, right? You understand that 19 So what is important to me is, let the 20 concept. 21 subject matters figure out what the subject matters 22 are supposed to figure out.

And so what I do is, I give them their guidelines that I feel are important, and then I allow them to work within the confines of those

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1	guidelines, and then I'm a part of the final review
2	process before it goes to the FAA.
3	Q Okay.
4	A I submit them to the FAA myself.
5	Q Have you ever disagreed with the change
6	to a checklist or training?
7	A I have, but I generally get my way if
8	it's something that I feel strongly enough about.
9	But you also have to understand that you need to
10	if you're going to ask a subject matter expert to do
11	their job, you need to respect their opinion, right?
12	So whether I agree or whether I disagree, if it's
13	appropriate and it's the safest way to do it, then
14	I'll generally acquiesce.
15	DR. WILSON: Any last questions around
16	the table?
17	Q (By DR. WILSON) Anything else that you
18	can think of to share with us that you think might
19	help in the investigation?
20	A No, ma'am.
21	Q Thank you, Raj. I really do appreciate
22	it.
23	A You're welcome.
24	(Whereupon, the interview concluded at
25	2:45 p.m. on October 23, 2015.)
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Raj Helweg

DATE: 10-23-15

I hereby certify that the attached transcription of page 1 to 62 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

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THE AIRCRAFT ACCIDENT THAT : NTSB Accident No. OCCURRED IN FRISCO, COLORADO : CEN15MA290 ON JULY 3, 2015 : :

INTERVIEW OF: DALE OGDEN

Tuesday, October 27, 2015

Denver, Colorado

BEFORE

JENNIFER S. RODI, Ph.D., Investigator in Charge, NTSB MATTHEW RIGSBY, FAA SHIN CHIHOON, NTSB\*

## APPEARANCES:

## On Behalf of the Interviewee:

MARK A. TOMICICH, ESQ. Office of the Chief Counsel Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591 202-385-8230

On Behalf of Air Methods:

DENNIS MCCALL\* Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

ED STENBY\* Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

On Behalf of Turbomeca USA:

BRYAN LARIMORE\* Turbomeca USA 2709 N. Forum Drive Grand Prairie, Texas 75052 972-606-7600

On Behalf of Airbus Helicopters, Inc.:

SETH BUTTNER\* Airbus Helicopters, Inc. 2701 N. Forum Drive Grand Prairie, Texas 75052 972-641-0000

\*Present by teleconference

	3
1	P-R-O-C-E-E-D-I-N-G-S
2	(9:08 a.m.)
3	DR. RODI: All right. So we're here
4	to conduct an interview with you and a couple of
5	your employees here in the Denver Office
6	regarding the Frisco, Colorado accident that
7	took place on July 3rd of 2015.
8	We're here for the furtherance of
9	safety, and we're not here to assign fault,
10	blame or liability in any way with our interview
11	or any portion of our investigation.
12	The NTSB cannot guarantee
13	confidentiality or immunity in anything that we
14	discuss today.
15	A transcript or summary of the
16	interview will be available in the public docket
17	following the release of the public docket and
18	the close of the investigation.
19	And the interviewee can have one
20	representative during the interview. Who do you
21	choose?
22	MR. OGDEN: Mark.

	4
1	DR. RODI: Okay. Excellent.
2	And just as a reminder, you cannot
3	testify or answer questions for Dale.
4	Any questions?
5	MR. TOMICICH: I understand.
6	DR. RODI: Okay. Excellent.
7	So we have a multitude of people on
8	the telephone today. You've met myself. I am
9	the investigator in charge for the accident from
10	the NTSB.
11	You've met Mr. Matt Rigsby. So I
12	will have the individuals on the telephone
13	please identify yourself and the company or
14	corporation that you're working with.
15	MR. McCALL; Dennis McCall, Air
16	Methods.
17	MR. STENBY: This is Ed Stenby. I'm
18	an Air Methods line pilot and represent the
19	Pilots' Union.
20	NTSB INVESTIGATOR CHIHOON: Chihoon
21	Shin or Chihoon Shin. I work with NTSB.
22	DR. RODI: Bryan, are you still on

	5
1	with us?
2	MR. LARIMORE: Yes. Bryan Larimore,
3	Turbomeca.
4	DR. RODI: Excellent. And who just
5	called in?
6	MR. BUTTNER: This is Seth Buttner
7	with Airbus Helicopter.
8	DR. RODI: Good morning, Seth.
9	MR. BUTTNER: Good morning.
10	DR. RODI: Excellent.
11	So do you understand the process of
12	an NTSB accident investigation the purpose of
13	the NTSB accident investigation? Or would you
14	like me to expound on that?
15	MR. OGDEN: No, I think I'm clear on
16	the process.
17	DR. RODI: Excellent.
18	And do you understand the role of
19	party members, accredited representatives and
20	technical liaisons?
21	MR. OGDEN: Why don't you fill me in
22	on that?

	6
1	DR. RODI: Okay.
2	So party members are U.S.
3	manufacturers, U.S. operators that provide
4	technical information to the NTSB during the
5	course of the investigation.
6	And then the accredited
7	representative granted through Annex 13 of IKO,
8	in addition to technical liaisons, serve a
9	similar function from foreign entities that
10	again allow technical information to be
11	introduced rapidly during the course of our
12	accident investigation. It gives us immediate
13	access to that information as we conduct our
14	investigation to ensure a thorough and complete
15	investigation. They're permitted to participate
16	in the interviews during all courses or portions
17	of the investigation, again, to ensure a
18	complete and thorough investigation.
19	Let's see. When you speak today,
20	please speak clearly. If you don't understand a
21	question, please don't hesitate to ask for
22	clarification on the question or for myself or

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7 anybody to repeat the question. 1 2 And if you can avoid from shaking 3 your head yes or no in response, those are difficult to capture when an interview is being 4 If you could just say yes or no transcribed. 5 and I'll try to keep on my toes and remind you 6 7 if that becomes an issue. Any questions or concerns --8 9 MR. OGDEN: Not at this time. Thank 10 you. 11 DR. RODI: -- before we get started? 12 Excellent. Okay. So that we can start, if you can 13 state your name and your position here with the 14 15 FAA. 16 MR. OGDEN: Dale Lee Ogden. And I am currently the manager of the Denver Flight 17 Standards District Office. 18 19 DR. RODI: 20 And can you give me an overview of your aviation background and gualifications? 21 22 MR. OGDEN: I can.

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	8
1	In 1984, I began flying as a as a
2	sophomore in high school. I learned in Colorado
3	Springs at Peterson Air Force Base.
4	After graduation, I went to Colorado
5	Northwestern Community College and graduated
б	with an Associate's Degree in Aviation
7	Technology and Applied Science.
8	There I also obtained my flight
9	instructor certificate with instrument rating,
10	ground instruction in advanced ratings,
11	commercial instrument ratings.
12	From CNCC, I took a job in
13	California as a flight instructor teaching
14	foreign students Japanese students how to
15	fly aircraft out there.
16	I was out there for about four
17	months and was offered a position back at
18	Colorado Northwestern Community College. And
19	they did that as a program to bring instructors
20	back to give them some experience for two years
21	and they would move on. It was a process that
22	would allow the students former students

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	9
1	to come back and teach at the college.
2	I spent two years at CNCC
3	instructing up there. From CNCC, I went to Red
4	Tail Aviation. It was 135 Code of Federal
5	Regulation 135 operator in Southern Utah.
6	And we operated primarily hauling river rafters
7	into back-country air strips for the Green River
8	and the Cataract Canyon Colorado River. We also
9	did freight, pipeline patrol, fire recon,
10	charters a number of different operations in
11	that arena.
12	That was a seasonal operator. So I
13	was busy six or seven months out of the year.
14	During the wintertime when the river rafting
15	wasn't occurring, I would instruct in Grand
16	Junction, Colorado. I flew for Campton Air and
17	did some instruction out of there and some
18	some stuff on my own with some private parties
19	in that area.
20	So I was at Red Tail for about seven
21	or eight years. During that time, I was the
22	chief pilot and wrote most of the manuals for

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	10
1	the company.
2	After Red Tail, I went to work for a
3	company called Med Arrow. And they were out of
4	Price, Utah. We were flying a Cesna 340 and a
5	Cesna 421 on air ambulance fixed-wing air
6	ambulance. We also did charters, flight
7	instruction, corporate things of that nature.
8	From Med Arrow, then I went back to
9	Red Tail Aviation as the assistant director of
10	operations. They had acquired a multi-engineer
11	craft. So I went to work with them and was
12	flying a Cesna 402.
13	And then shortly thereafter, Red
14	Tail Aviation was purchased by Lake Powell Air
15	Service out of Page, Arizona. Went to work for
16	that organization. At that same time, we
17	launched a 121 airline Sunrise Airlines. And
18	I was part of the initial cadre that launched
19	the airline.
20	So I flew for them and and
21	actually just before the airline was bought, I
22	became the general manager for Red Tail Aviation

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	11
1	of all of their their Utah operations. So we
2	had Green River, Utah and Mohab, Utah, both
3	fixed-base operations and all of the operations
4	encompassing that.
5	Then we launched the airline with
6	Sunrise Airlines. And I flew for them for about
7	two years as a first officer and then also as a
8	captain. Then Sunrise Airlines went out of
9	business.
10	Following Sunrise Airlines going out
11	of business, I went to work for Timberline
12	Aviation out of Grand Junction, Colorado. And
13	we were flying a *(9:16:31) commanders on
14	medical contract. We had the St. Mary's
15	contract for the hospital over there flying
16	fixed-wing medical transportation. And we also
17	had a VA contract hauling veterans, patients to
18	interfacility transfers for most of the
19	hospitals west of the Mississippi.
20	I worked with them until 2002 at
21	which time I went to work with the FAA. I hired
22	in at Salt Lake City FSDO as a general aviation

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1	principal operations inspector. And I was there
2	from 2002 until about 2005, 2006. And I took a
3	position in Salt Lake City also with the FAA as
4	the Skywest Airlines CMO. And I went into their
5	organization as the ASAP program manager.
6	I then bid a position as the
7	assistant principal operations inspector for Sky
8	West Airlines. And and then after that, I
9	think it was around 2008 2007 somewhere in
10	there I took a position as a front-line
11	manager as Sky West Airlines CMO.
12	In 2009, I was selected as the
13	office manager for the Rocky Mountain CMO here
14	in Denver and transferred to Denver. And then,
15	we kept that office until April of 2013 when the
16	decision was made to merge the Rocky Mountain
17	CMO back with the Denver FSDO. Prior to that,
18	they were two separate offices.
19	We merged those two offices in April
20	of 2013 at which time I was reassigned as an
21	assistant manager. And they brought in a
22	manager out of Washington, D.C.

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	13
1	He retired in April of 2015. I bid
2	the job for the manager of the FSDO and was
3	selected to the manager's job about six weeks
4	ago. So I'm new into the manager's job for the
5	FSDO.
6	Again, that was about six weeks ago.
7	And that brings us up to date.
8	DR. RODI: Thanks.
9	So how long have you been with the
10	FAA total?
11	MR. OGDEN: Since 2002, I think it's
12	just over what 13 years now.
13	DR. RODI: Okay. Excellent.
14	And so you've been the manager here
15	in an official capacity for six months?
16	MR. OGDEN: Approximately six weeks.
17	DR. RODI: Six weeks. Okay.
18	And what are your responsibilities
19	as the manager here?
20	MR. OGDEN: I have overall
21	responsibility for the functioning of the
22	office. So I also have responsibility to ensure

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	14
1	that we have staffing available to fulfill the
2	FAA mission of oversight of all the
3	certificates.
4	There's a whole laundry list of
5	things that I have a responsibility for. And a
6	lot of that is delegated to other individuals.
7	An example would be managing the government
8	vehicle fleet. Even though I have ultimate
9	responsibility of it, I delegate that to another
10	person to manage that fleet and and feed me
11	back information on how that that is going.
12	DR. RODI: And prior to six weeks
13	ago, what were your responsibilities here in the
14	office?
15	MR. OGDEN: I was an assistant
16	manager. And my responsibilities, I had five
17	front-line managers that report to me. Those
18	front-line managers have responsibility for the
19	Air Methods certificate management. And then I
20	also have two front lines that have
21	responsibility for most all of the general
22	aviation certificates that are held in our

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15 office. 1 2 DR. RODI: And do you have 3 experience as a POI? MR. OGDEN: I do. 4 And did you ever serve as DR. RODI: 5 an inspector or a principal for the Air Methods 6 7 certificate? I did not. MR. OGDEN: 8 9 DR. RODI: In the performance of your duties, is there any one area where most of 10 11 your time is spent? 12 MR. OGDEN: Human resources, probably. 13 DR. RODI: Anything with regards to 14 15 certificate management? MR. OGDEN: Me, personally, my -- my 16 responsibility really is interfacing with the 17 18 front-line managers and trying to work with them 19 in getting correct guidance interpretation of 20 the FAA orders, assisting them with any questions that are raised to them from the 21 22 principal inspectors that actually have the

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	16
1	certificate management responsibility.
2	So I work as a support function for
3	them to ensure that they have resources, funding
4	and manpower and also to try to get them
5	questions and answer if there becomes a concern
б	or a question regarding guidance.
7	DR. RODI: Prior to your accident,
8	what was your biggest area of concern with Air
9	Methods?
10	MR. OGDEN: I didn't have an
11	accident.
12	DR. RODI: Prior to the Air Methods
13	accident.
14	MR. OGDEN: Okay.
15	DR. RODI: I apologize.
16	MR. OGDEN: Could you re-phrase the
17	question?
18	DR. RODI: Yes, absolutely.
19	So prior to the Frisco, Colorado
20	accident, what was your biggest area of concern
21	with Air Methods?
22	MR. OGDEN: I would say my biggest

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	17
1	concern would have been really just the
2	relationship between Air Methods and the FAA.
3	I mean, there's lots of technical
4	things that are going on with the airline in any
5	certificate we oversee. But from an assistant
6	manager standpoint is is really making sure a
7	working relationship is one that's fostering
8	open communication and one that we can work
9	through issues that may arise.
10	And so, my time in there was
11	probably mainly focusing on that.
12	DR. RODI: With whom at Air Methods
13	do you normally work with or interact?
14	MR. OGDEN: On a consistent basis,
15	it's Archie Gray. We tend to meet as we try
16	to meet on a monthly basis. It doesn't always
17	happen. But that is a cycle that we've tried to
18	tried to continue.
19	DR. RODI: And what is the purpose
20	of those monthly meetings?
21	MR. OGDEN: Those meetings are
22	usually pretty high level. It's an opportunity

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1	for us to discuss you know growth plans
2	for the airline, things that are changing. It's
3	an opportunity for me to try to see what may
4	change in the airline that the FAA may need
5	additional resources or funding or technical
6	expertise and try to make sure that I'm I'm
7	paving that road for when those occurrences
8	occur, we're prepared as an FAA to to support
9	the carrier with a correct interpretation of the
10	guidance, manpower and oversight, surveillance
11	and things like that.
12	Another thing we try to do is to
13	just ensure that our teams are communicating.
14	If if Archie would bring an issue up to me or
15	I would bring an issue up to him and it was the
16	first time either one of us had heard it before
17	would be an indicator that maybe some
18	communication is breaking down within our own
19	organizations. And so we would strive hard to
20	try to make sure that that communication is
21	always successful.
22	DR. RODI: Anybody else involved in

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	19
1	those meetings other than you two?
2	MR. OGDEN: Dan Bachelder who was
3	the office manager prior to his retirement in
4	April of 2013 or April of 2015 excuse me -
5	- would sit in with Archie on occasion he and
б	I. It was not a consistent occurrence with Dan
7	in there, but on occasion he would come and join
8	us.
9	Other than that, there's really
10	nobody else that joined us on a regular basis.
11	DR. RODI: What role do you play in
12	the approval of procedures, manuals or
13	checklists for Air Methods?
14	MR. OGDEN: Really what I do is
15	is a final cursory review of the document before
16	it leaves the office. The actual technical
17	review is done by the principal inspectors who
18	have certificate oversight.
19	Once they have reviewed it and
20	approved it or accepted a program, normally a
21	FAA letter is written in response back to the
22	carrier. That letter would go through the FLM -

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	20
1	- the front-line manager to make sure you
2	know grammaticals and the and that we
3	represent the agency and the guidance correctly.
4	And then that would go across my
5	desk also as an additional check and balance to
6	ensure that we're not offering or granting
7	something that should not be granted in
8	accordance with the guidance. Grammatically,
9	it's written correctly and it's not going to
10	present a bad light or embarrassment of the
11	Agency if if we're sending not very good
12	quality documentation back to the carrier.
13	DR. RODI: Sure.
14	Have you ever attended training at
15	Air Methods?
16	MR. OGDEN: I have not.
17	DR. RODI: And is there a reason why
18	not or is it within the scope of expectations
19	for your position?
20	MR. OGDEN: As a manager of the
21	office or even as an assistant manager, my my
22	expertise is not really the technical side of

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	21
1	of approving the carrier's program. That is
2	empowered with the principal inspectors.
3	I have you know I I just
4	ran the numbers this morning. I have
5	approximately 202 certificates in this office.
6	And it would be impractical for me to attend
7	training in all of those certificates. Four of
8	those certificates are large certificates.
9	Three of them are Part 121 carriers. And then
10	we have Air Methods.
11	So it's impractical for me to attend
12	all those trainings.
13	DR. RODI: Sure.
14	Have you ever served in the capacity
15	then as a check airman for Air Methods?
16	MR. OGDEN: I have not.
17	DR. RODI: Okay.
18	So changing direction here a little
19	bit, did you ever receive verbal or written
20	concerns from any pilots at Air Methods prior to
21	the accident?
22	MR. OGDEN: I do not recall

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	22
1	receiving any.
2	DR. RODI: Okay.
3	And what guidance do you provide
4	your POIs for the certificate management or
5	oversight for Air Methods?
6	MR. OGDEN: Again, it would be
7	support for them in correct interpretation of
8	the FAA orders that are that are issued. If
9	if something is issued that may have some
10	confusion in interpretation, then I would be the
11	liaison between then and our regional office or
12	interfacing with our headquarters branch office
13	to get the appropriate interpretation to get
14	that answer back to RSF.
15	DR. RODI:
16	To your knowledge, have there been
17	any focused inspections National Aviation
18	Safety Inspection Programs or Regional Aviation
19	Safety Inspections Programs at Air Methods?
20	MR. OGDEN: Can you be more specific
21	on what kind of inspections?
22	DR. RODI: The NASP or the National

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1	Aviation Safety Inspection Program or a Regional
2	Aviation Safety Inspection Program where it
3	would be a collaborative or a team that would go
4	in and conduct an inspection or investigation of
5	their operations, their procedures.
6	MR. OGDEN: I'm going to have to say
7	I'm not familiar with any specific
8	investigations like that or inspections. I
9	mean, Air Methods does get I mean, they do
10	LOSA. I think they pay for a LOSA observation
11	which is a private company. AFS-900 I think
12	came in recently regarding their safety
13	assurance program. I think that was just a
14	follow up that 900 does. But I don't know of a
15	NAS-specific inspection that has occurred.
16	DR. RODI: Okay. Thank you.
17	Are you aware of any violations with
18	Air Methods prior to the accident?
19	MR. OGDEN: I am.
20	DR. RODI: And can you elaborate on
21	those?
22	MR. OGDEN: There was one in

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1	February which was high national media. There
2	was actually a notice that was put out. They
3	were cited for a \$1.54 million violation
4	regarding an overflight of water without
5	floatation devices. That, I believe, is still
6	in litigation.
7	There was we had 80 overflight
8	enforcements in the past component and
9	inspection enforcements in the past.
10	So there's a number of different
11	violations that have occurred in the past.
12	Right now, I do not believe our offices are
13	working any investigations or enforcements at
14	this time. All of those that have been
15	processed are currently in litigation.
16	DR. RODI: Okay. Understood.
17	Were any violations reported to you
18	by company personnel as opposed to the normal
19	Air Methods line of communication?
20	MR. OGDEN: Well, communicated to
21	me. We have the voluntary disclosure program
22	that Air Methods uses. I do get notification at

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	25
1	any time they submit a voluntary disclosure.
2	Voluntary disclosures get an enforcement number
3	assigned to them. So by the fact that that
4	occurs, I would say yes, through that media, I
5	get notifications from the company of potential
6	violations.
7	DR. RODI: And what have been the
8	recent topics that have come to your attention?
9	MR. OGDEN: Recently, it's it's
10	mainly overflight of inspection, the a
11	tracking system that didn't work things of
12	that nature.
13	DR. RODI: Understood.
14	How were you informed about the
15	accident?
16	MR. OGDEN: I received a text
17	notification from our regional command center in
18	Breton, Washington. I was actually on leave
19	that day and received it on my phone.
20	DR. RODI: Did you know the accident
21	pilot?
22	MR. OGDEN: I did not.

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1	DR. RODI: Since the accident, have
2	you modified or been involved in the
3	modifications of survey of Air Methods?
4	MR. OGDEN: Specifically, I have
5	not. That is a function that's been done by the
б	principal operations and maintenance inspectors
7	in the front lines in in modifying their
8	surveillance plan. I certainly had discussions
9	regarding moving forward. But the actual
10	modification of that plan is done by the
11	principals.
12	DR. RODI: Understand. Thank you.
13	Since the accident, have you
14	personally requested any changes to Air Methods'
15	operational procedures?
16	MR. OGDEN: Me, personally, I have
17	not.
18	DR. RODI: What is the FAA's
19	position with regards to safety information
20	notices, service bulletins and so on that would
21	come from different manufacturers specifically
22	with regards to Air Methods' review, compliance

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27 or distribution of that information? 1 You know, I would have 2 MR. OGDEN: 3 to review the guidance again on the specific standpoint by the FAA. So unfortunately, I 4 wouldn't be able to answer that question with 5 any detail at this time. 6 7 DR. RODI: Okay. If we could follow up to get an 8 9 answer where you would go for that guidance and then what you would then provide Air Methods, 10 11 that would be great. 12 MR. OGDEN: I could tell you where we would go. 13 We have a -- a -- a database called 14 15 FSIMS. And all of the FAA guidance, regulations, advisory circulars, I believe 16 service bulletins -- all of that is contained in 17 18 that FAA database. 19 It is a searchable database to all 20 inspectors. And they can search that at any time. 21 22 DR. RODI: Okay.

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1	And that's available just to FAA or
2	
3	MR. OGDEN: No. FSIMS actually has
4	a public site that is available to the general
5	public. So anybody can access FAA orders in the
6	regulations. That way it's available to anybody
7	in the general public also.
8	DR. RODI: Understood.
9	Were you familiar with the Safety
10	Information Notice or service bulletin that was
11	distributed by Airbus Helicopters in August of
12	2014 addressing the dual hydraulics within the
13	AS-350?
14	MR. OGDEN: I became aware of it
15	post-accident during a meeting with Archie Gray.
16	And prior to that, I was not aware of it.
17	DR. RODI: Okay.
18	And have you been involved in any
19	actions regarding that Safety Information Notice
20	or the service bulletin?
21	MR. OGDEN: Not with the carrier,
22	no. My interaction would be strictly based on

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	29
1	what the principal inspectors and their
2	interface with the carrier would be.
3	DR. RODI: Understood.
4	Were you aware of the Temple, Texas
5	incident operated by Air Methods involving the
6	dual hydraulic isolation switch?
7	MR. OGDEN: Just vaguely. I do not
8	know of any of the specific details or the
9	outcome of the investigation.
10	DR. RODI: Understood.
11	Following the accident the
12	Frisco, Colorado accident several employees
13	at Air Methods left or were let go including the
14	vice president of safety and the senior director
15	of safety. Did this departure concern you?
16	MR. OGDEN: Any time there's a
17	departure in the safety role, it concerns me.
18	However, prior to that, I was aware
19	that Air Methods was doing some staffing
20	reductions due to cost. And I was also aware
21	that there had been concerns in the safety
22	department.

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	30
1	DR. RODI: Can you elaborate on
2	those concerns?
3	MR. OGDEN: In discussion with
4	Archie Gray that the vice president of safety
5	Red Stockhouse I believe was his name they
6	he was concerned with his performance in in
7	his position, and they were going to work with
8	him to try to get him to increase his
9	performance.
10	There was never any discussion about
11	termination, just that they wanted him to
12	increase his performance and they were working
13	on some measures to getting better engaged and
14	things like that.
15	DR. RODI: What reason were you
16	given for his departure or the senior director
17	of safety's departure?
18	MR. OGDEN: My understanding is both
19	individuals left for other employment that was
20	procured prior to their departure.
21	DR. RODI: What was your role in the
22	roundtable meeting with Air Methods following

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1	the Frisco, Colorado accident?
2	MR. OGDEN: Can you elaborate on the
3	roundtable meeting?
4	DR. RODI: We understand that there
5	was a roundtable meeting that involved FAA
6	personnel and Air Methods personnel to address
7	their certificate.
8	MR. OGDEN: I'm not sure if I know
9	the specific meeting you're having. We had a
10	meeting which we considered as a re-set meeting.
11	This this really didn't have anything to do
12	with the Frisco accident. That was more of a
13	re-set meeting in getting the two organizations
14	and our relationship to move forward. It was
15	also to discuss the new compliance philosophy
16	that has been rolled by the Administrator and
17	how that may move forward and how our two
18	organizations were going to communicate more as
19	we move forward and try to build on a a more
20	open and collaborative relationship.
21	DR. RODI: Were you involved in the
22	meeting that was held between Air Methods and

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1	the FAA where they addressed the departure of
2	the vice president of safety and the director of
3	safety?
4	MR. OGDEN: I was not in that
5	meeting.
6	DR. RODI: Okay.
7	Have you met with anyone from Air
8	Methods since the accident, either individually
9	or as a group?
10	MR. OGDEN: I have had I have met
11	with Archie Gray, post-accident. And I recently
12	met with Mike Allen, post-accident.
13	In Mike Allen's meeting, there was
14	no discussion of the actual accident itself. It
15	was more of a meeting to re-set our roles,
16	primarily me as the new office manager and to
17	open up that dialogue and to establish a meeting
18	standard for he and I moving forward into the
19	future.
20	DR. RODI: And changing the
21	directions one more time, you mentioned your
22	very extensive experience in aviation flying as

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33 a pilot. Do you hold helicopter certificates or 1 2 ratings? 3 MR. OGDEN: I do not. DR. RODI: 4 Okay. All right. I'm going to open it up 5 for questions. б Katherine, were you able to join us? 7 (No audible response.) 8 9 DR. RODI: Shin, do you have questions? 10 11 PARTICIPANT: Say that again. Who 12 did you ask for? DR. RODI: Shin. 13 NTSB INVESTIGATOR CHIHOON: Not at 14 this time. 15 16 DR. RODI: Okay. Matt, do you have questions? 17 18 FAA INVESTIGATOR RIGSBY: Just a 19 couple follow-ups. 20 Dale, you mentioned one of your jobs is staffing. 21 22 MR. OGDEN: Yes.

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1	FAA INVESTIGATOR RIGSBY: What is
2	the office as far as inspectors principal
3	investigators and office personnel? What is the
4	staffing that you are allotted?
5	MR. OGDEN: Well, that's an
6	interesting question because our allotment is
7	based on Congressional funding.
8	Currently, our office is is
9	allocated a total office staffing I believe
10	it's 121 positions.
11	So we have a 121 total positions
12	allocated to the office. We have 111 positions
13	on board. So we're still trying to fill ten
14	positions as an office whole.
15	And again, that covers 201
16	certificates to include administrative staff.
17	FAA INVESTIGATOR RIGSBY: Okay.
18	As far as staffing just for the air
19	medical or for the Air Methods' certificate,
20	are all those positions filled?
21	MR. OGDEN: They are not. The
22	staffing for the Air Methods' oversight right

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	35
1	now is based on a recent memo which identifies
2	large FAA oversight for *(9:39:42). And that's
3	categorized by small, medium and large.
4	Our current staffing model for the
5	Air Methods' certificate is in alignment with
6	that staffing model excluding one position which
7	is an assistant principal avionics inspector.
8	And so, with the addition of that position, if
9	we get that position, we will meet the staffing
10	model exactly as described in the memo.
11	FAA INVESTIGATOR RIGSBY: Okay.
12	As far as training for your
13	inspector, do they come directly to you for that
14	or do they go through their front-line managers
15	for that?
16	MR. OGDEN: The the training is
17	usually done through their front-line managers.
18	And in February of every year, we do an exercise
19	called and it's a call for training.
20	FAA-wide, every inspector visits
21	with their front-line manager and they looked at
22	proposed training for the next fiscal year. So

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1	we put it in February. Let's say an example,
2	February 2016, and that would be planning for
3	fiscal year '17.
4	We look at the profile for each of
5	the positions the individual is in whether it's
6	an inspector or administrative. And we look at
7	what is identified as their position-essential
8	courses. And we we put them in for those
9	courses.
10	Certainly for our inspectors, we
11	have technical training that that may be
12	available for either operations or mechanics and
13	avionics individuals.
14	FAA INVESTIGATOR RIGSBY: Are you
15	the final authority on signing off on that
16	training? Or does it have to go above you?
17	MR. OGDEN: No. It it actually
18	goes through our regional training coordinator.
19	We do do a review of all of the training that we
20	submit with that training coordinator. And from
21	them, it gets submitted to AFS-500. AFS-500
22	ultimately is the organization that allocates

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37 training, the training dates, what time of year, 1 2 and things like that to the inspectors in the 3 FAA. FAA INVESTIGATOR RIGSBY: 4 Are your principal inspectors, if Air Methods is having 5 training courses, are the principals allowed to 6 7 participate in that training? MR. OGDEN: Yes and no. If the 8 9 training is provided by Air Methods, then the expectation for the FAA is that the inspectors 10 11 would surveil those training programs, give them 12 an opportunity to look at the programs and sit It gives the FAA an opportunity to learn 13 in it. about the carrier, too. 14 15 For example, a general aviation principal may have eight or nine companies they 16 have responsibility for. For them to gain 17 knowledge of each of those companies, they 18 19 should go out and sit through some training 20 sometime during the year so they get familiar with the company. Otherwise, it's -- there's no 21 22 way they could get intimately familiar with ten

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1	different companies and sometimes those change.
2	If the carrier puts the training on,
3	they can attend it. If the training is provided
4	by an outside entity and I'll use an example
5	of let's say Boeing Airlines comes into United
6	and presents a Boeing Airlines training course
7	to United, that would normally cost \$15,000 or
8	\$20,000 for a participant to attend. It can be
9	construed as a conflict of interest and that the
10	FAA may surveil and attend this training for
11	free when another person's having to pay for it.
12	So if the carrier that we oversee
13	provides the training themselves, we can surveil
14	it and attend it and things like that. If the
15	training's being provided by an outside entity,
16	we have to run that past legal and make sure
17	that there's we're meeting all of the
18	requirements and there's no conflicts of
19	interest or for things of that nature.
20	FAA INVESTIGATOR RIGSBY: Okay.
21	Has Air Methods always been amenable
22	to inspectors attending training?

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1	MR. OGDEN: What I'm aware of, yes.
2	FAA INVESTIGATOR RIGSBY: Right now,
3	your relationship with Air Methods, do you feel
4	that if they had a problem with a principal
5	inspector or another FAA employee that they
6	would hesitate at all to call you?
7	MR. OGDEN: I do not think there
8	would be any hesitation on Archie's part to call
9	me.
10	FAA INVESTIGATOR RIGSBY: Okay. So
11	you'd say it's pretty open
12	MR. OGDEN: Yes.
13	FAA INVESTIGATOR RIGSBY: in
14	communication between the two?
15	MR. OGDEN: Yes.
16	FAA INVESTIGATOR RIGSBY: That's all
17	I have.
18	DR. RODI: Okay.
19	Dennis, do you have any questions?
20	MR. McCALL: No, I do not. Thank
21	you.
22	DR. RODI: Ed?

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1	MR. STENBY: No, I do not.
2	DR. RODI: Seth?
3	MR. BUTTNER: No, I don't. Thank
4	you.
5	DR. RODI: Bryan?
6	MR. LARIMORE: No. Thank you.
7	DR. RODI: So I have one follow-up
8	question to Matt's questions.
9	Is there any training that you feel
10	would be beneficial for your staff in the
11	management of a certificate in general or
12	specifically the Air Methods' certificate
13	they're not able to obtain right now?
14	MR. OGDEN: I would say yes. In
15	in a perfect world, we would like to have all of
16	our operations inspectors completely qualified
17	on all of the equipment or at least the
18	equipment that Air Methods is operating and
19	being NVG-qualified.
20	Because of FAA funding and
21	resourcing and things of that nature, we do not
22	have that at this time. But we have we have

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	41
1	11 operations positions available in the Air
2	Methods unit. We have eight of those filled
3	currently. And we are allocated six positions
4	to be completely qualified night-vision goggle
5	current operations inspectors.
б	So ideally, it would be great if we
7	could have all of our people current. And that
8	would be a perfect situation.
9	DR. RODI: Sure.
10	Anything that you think we should
11	have asked that we didn't or anything that you
12	feel that is important to add that would help us
13	or further the quality of our investigation?
14	MR. OGDEN: I don't have anything at
15	this time. No.
16	DR. RODI: Well, we appreciate your
17	time.
18	You have my business card.
19	MR. OGDEN: Right.
20	DR. RODI: If you have any
21	questions, don't hesitate to reach out to me or
22	to Matt Rigsby if you had anything that you want

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1	to add or you feel that is important or if you
2	have questions with regards to the
3	investigation.
4	MR. OGDEN: Okay.
5	DR. RODI: All right?
б	MR. OGDEN: Thank you, Jennifer.
7	DR. RODI: Thank you.
8	(Whereupon, at 9:46 a.m, the
9	interview was concluded.)
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Dale Ogden

DATE: 10-27-15

I hereby certify that the attached transcription of page 1 to 43 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

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## NATIONAL TRANSPORTATION SAFETY BOARD

	:
IN RE:	:
	:

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THE AIRCRAFT ACCIDENT THAT : NTSB Accident No. OCCURRED IN FRISCO, COLORADO : CEN15MA290 ON JULY 3, 2015 :

INTERVIEW OF: ERIC MONTEITH

Tuesday, October 27, 2015

Denver, Colorado

BEFORE

JENNIFER S. RODI, Ph.D., Investigator in Charg, NTSB MATTHEW RIGSBY, FAA SHIN CHIHOON, NTSB\*

## APPEARANCES:

## On Behalf of the Interviewee:

MARK A. TOMICICH, ESQ. Office of the Chief Counsel Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591 202-385-8230

On Behalf of Air Methods:

DENNIS MCCALL\* Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

ED STENBY\* Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

On Behalf of Turbomeca USA:

BRYAN LARIMORE\* Turbomeca USA 2709 N. Forum Drive Grand Prairie, Texas 75052 972-606-7600

On Behalf of Airbus Helicopters, Inc.:

SETH BUTTNER\* Airbus Helicopters, Inc. 2701 N. Forum Drive Grand Prairie, Texas 75052 972-641-0000

\*Present by teleconference

	3
1	P-R-O-C-E-E-D-I-N-G-S
2	(10:01 a.m.)
3	DR. RODI: Good morning.
4	May I call you Eric?
5	MR. MONTEITH: You may.
6	DR. RODI: Okay.
7	So just as a refresher reminder,
8	we're here in the furtherance of the fatal
9	helicopter accident in Frisco, Colorado operated
10	by Air Methods that took place on July 3rd of
11	2015.
12	The purpose of our interviews today
13	and the investigation in general is the
14	furtherance safety, accident prevention. We are
15	not here to assign fault, blame or liability in
16	anything that we discuss in the interview or any
17	portion of the accident investigation.
18	Questions?
19	MR. MONTEITH: None.
20	DR. RODI: Excellent.
21	So the NTSB cannot guarantee
22	confidentiality or immunity during our

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	4
1	discussion today.
2	And a transcript of this interview
3	will be included in the public docket for the
4	accident investigation.
5	Any questions?
6	MR. MONTEITH: No.
7	DR. RODI: Okay.
8	You are entitled to have one
9	representative of your choice. Who do you
10	choose?
11	MR. MONTEITH: Mark.
12	DR. RODI: Okay. Excellent.
13	MR. MONTEITH: Thanks, Mark.
14	DR. RODI: As a reminder, you cannot
15	testify or answer questions for him.
16	MR. TOMICICH: I understand.
17	DR. RODI: Okay.
18	You've met me
19	MR. MONTEITH: I have.
20	DR. RODI: Jennifer Rodi. I am
21	the Investigator in charge with the National
22	Transportation Safety Board and assigned to this

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	5
1	investigation.
2	You've met Mr. Matt Rigsby.
3	On the telephone today, we have
4	Chihoon Shin. He is our helicopter expert with
5	the National Transportation Safety Board.
6	We have Dennis McCall. He is with
7	the Air Methods certificate.
8	We have Ed Stenby. He is a line
9	pilot and union representative with Air Methods.
10	Seth Buttner with Airbus
11	Helicopters.
12	And Bryan Larimore with Turbomeca.
13	Do you understand the process of an
14	NTSB accident investigation and the roles that
15	partner members, accredited representatives and
16	technical liaisons play in that investigation?
17	MR. MONTEITH: Roughly, yes.
18	DR. RODI: Okay. Do you want me to
19	explain
20	MR. MONTEITH: Sure. That'd be
21	great.
22	DR. RODI: and elaborate on

	0
1	anything?
2	So the NTSB is tasked by Congress
3	and the President of the United States to
4	investigate all transportation accidents,
5	aviation accidents, specifically.
б	And we have three pillars of
7	responsibility during the conduct of that
8	investigation: to establish facts and
9	circumstances surrounding the accidents
10	that's what we're going to do in part with our
11	interview with you today; establish the probable
12	cause and that probable cause is established
13	through analysis based on the facts and
14	circumstances that we have access to during the
15	course of the investigation; and then, accident
16	prevention through recommendations,
17	accomplishments, results and outreach that we do
18	from what we learn from the investigation.
19	Party members are U.Sbased
20	manufacturers, operators, the FAA, who are
21	involved in the accident and the IIC feels can
22	lend technical expertise in the course of the

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investigation. 1 The technical liaisons are foreign-2 3 based manufacturers and operators' representatives that are appointed through the 4 accredited representative or foreign NTSB FAA 5 equivalent that can again, based on the IAC's 6 7 discretion and decision, bring technical expertise in the furtherance of the 8 9 investigation to ensure that we have rapid access to technical information that we need and 10 11 to ensure a complete and thorough investigation. 12 Any questions in that regard? 13 MR. MONTEITH: No, none. DR. RODI: Excellent. 14 15 You've met everybody. You understand the investigation process. 16 When you answer questions, answer 17 them to the best of your knowledge or 18 19 recollection. If you don't understand a 20 question, don't hesitate to have me clarify or re-state the question. 21 22 I will lead the interview today, and

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1	then I will open it up to the party members and
2	technical liaisons to see if they have any
3	questions.
4	This is being transcribed. So if
5	you can avoid shaking your head yes or not in
б	response, it's difficult to capture that
7	MR. MONTEITH: Okay.
8	DR. RODI: for the transcript
9	purpose.
10	Any other questions or issues before
11	we get started?
12	MR. MONTEITH: No.
13	Now if I say something and it's not
14	clear, I've got a little bit of a head cold. So
15	if it's not clear, just ask me again.
16	DR. RODI: Okay. Excellent.
17	Do you need water or anything
18	tissues?
19	MR. MONTEITH: I've got it. Thank
20	you.
21	DR. RODI: Okay. Excellent.
22	MR. TOMICICH: And Jennifer, just so

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	9
1	you know, I told Eric if he needs to take a
2	short break because he's getting congested, we
3	could do that.
4	DR. RODI: Yes. Absolutely. Just
5	let us know. We'll go off the record and we can
6	proceed
7	MR. MONTEITH: Sounds great.
8	DR. RODI: Okay.
9	So if you can state for us first,
10	middle and last name and your current position
11	or title with the FAA.
12	MR. MONTEITH: My name is Eric James
13	Monteith. I'm the principal operations
14	inspector for the Air Methods certificate.
15	DR. RODI: Excellent.
16	And if you can give me an overview
17	of your aviation background and qualifications.
18	MR. MONTEITH: I've spent still
19	in the U.S. Military, been in the Army, flown
20	helicopters for roughly 28 years in the Army.
21	And I'm still in that although not in a flying
22	position. And I worked in the airlines for

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	10
1	almost 18 years through numerous positions
2	pilot, check airman, DE for the FAA multiple
3	positions there.
4	DR. RODI: So what aircraft rated or
5	qualified for?
6	MR. MONTEITH: For fixed-wing?
7	DR. RODI: Fixed-wing or rotocraft.
8	MR. MONTEITH: You're talking my
9	certification I have on my ATP airplane and
10	multi-engine land rotocraft helicopter.
11	DR. RODI: And how much flight time
12	or experience do you have?
13	MR. MONTEITH: Oh, gosh. I would
14	say 7 8,000 hours something along those
15	lines.
16	DR. RODI: And how long have you
17	been with the FAA?
18	MR. MONTEITH: Seven years a
19	little over seven years.
20	DR. RODI: And how long as a
21	principal operations inspector or POI?
22	MR. MONTEITH: Just one year.

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	11
1	DR. RODI: Just one year.
2	And how long as the POI for Air
3	Methods?
4	MR. MONTEITH: Ask me that again.
5	DR. RODI: How long have you been
6	the POI for Air Methods?
7	MR. MONTEITH: One year.
8	DR. RODI: One year.
9	MR. MONTEITH: Yes.
10	DR. RODI: Okay. And had you been a
11	POI for any other certificate prior to that?
12	MR. MONTEITH: No. I was on the Air
13	Methods team prior to that for roughly six years
14	and then became the POI.
15	DR. RODI: Okay. Understand.
16	What training did you receive before
17	becoming a POI?
18	MR. MONTEITH: There were a couple
19	of courses in Oklahoma City dealing with HA
20	oversight and just the regular you know
21	education we get as an FAA inspector. Nothing
22	specific for being a POI.

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1	DR. RODI: Understand.
2	And how many other certificates are
3	you responsible for?
4	MR. MONTEITH: None. Air Methods is
5	the only certificate.
6	DR. RODI: Are there other
7	collateral duties that take you away from the
8	Air Methods certificate?
9	MR. MONTEITH: In the office, we
10	have multiple responsibilities. We deal with
11	pilot deviations. Myself, I don't get tasked
12	with as many as other members on the team. So
13	not as frequently, but yes, occasionally.
14	DR. RODI: When you became POI for
15	Air Methods, what communications or outbriefing
16	did you receive from the previous POI?
17	MR. MONTEITH: There was no previous
18	POI. The position was vacant.
19	DR. RODI: Okay.
20	How long was the position vacant?
21	MR. MONTEITH: I'm not exactly sure.
22	I was on a deployment.

	13
1	I would say right around a year.
2	DR. RODI: Okay.
3	MR. MONTEITH: But I'm not certain
4	of that.
5	DR. RODI: When you took the
6	position, were there areas of concern, focus or
7	follow-up that were of immediate concern or
8	tasked to you?
9	MR. MONTEITH: I would say really
10	the only immediate area of concern or task was
11	the pilot training program.
12	It had gone through an approval
13	process that needed a little work previously.
14	And as I became the POI working with the
15	Director of Operations, they established a new
16	format for their pilot training program. It's
17	now in the initial approval stage. We're
18	working towards final approval.
19	DR. RODI: Okay.
20	Do you know why the position was
21	vacant for more than a year?
22	MR. MONTEITH: I do not.

	14
1	DR. RODI: Okay.
2	What are your duties and
3	responsibilities as POI for the Air Methods
4	certificate?
5	MR. MONTEITH: The duties and
б	responsibilities are basically to you know
7	we're I guess I'll paraphrase here. I don't
8	have access to the the job description. But
9	basically, I represent the U.S. government. We
10	ensure regulatory compliance for the
11	certificate. We strive to ensure the utmost
12	safety for the public. And I work directly with
13	the 199 representatives on the certificate,
14	primarily the chief pilot and the Director of
15	Operations. We have a very excellent
16	relationship. It's a collaborative relationship
17	trying to achieve the highest degree of safety.
18	DR. RODI: Understood.
19	In general, how would you
20	characterize your workload with the Air Methods
21	certificate?
22	MR. MONTEITH: We're busy.

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	15
1	DR. RODI: Is this office the end of
2	the line as far as oversight is concerned for
3	Air Methods? Or do you receive assistance or is
4	responsibility assigned to a regional aspect or
5	a headquarters aspect?
6	MR. MONTEITH: This is the
7	certificate holding district office. It stops
8	here.
9	DR. RODI: Okay.
10	In the performance of your duties,
11	is there any one area where you spend most of
12	your time?
13	MR. MONTEITH: I would say one of
14	our our primary tasks now working with Air
15	Methods in addition to the the routine
16	things, we're trying to work with them as they
17	go into the new SMS program. You know, they
18	were the first 135 certificate holder to be
19	level 4 under the old program. So now they're
20	transitioning into the voluntary program under
21	part 5. And there's a lot of work there.
22	So I would say that's one of our

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	16
1	our main focuses right now is trying to keep
2	that process on track.
3	DR. RODI: Prior to the accident in
4	Frisco, Colorado, what was your biggest area of
5	concern with Air Methods?
6	MR. MONTEITH: I would you know -
7	- I nothing jumps right out as far as oh, my
8	gosh, we have to attack that, you know? Only
9	being a POI for one year and still kind of
10	getting my feet under me looking at all the
11	different systems they have in place, I I
12	would say really there's nothing that jumps out
13	and says this is a big concern right now.
14	DR. RODI: Understand.
15	Who do you have help with the
16	surveillance of Air Methods?
17	MR. MONTEITH: On the operations
18	team, my current there's a team of eight
19	inspectors right now. I have one assistant.
20	Then there's seven or six other inspectors on
21	the team.
22	DR. RODI: And are they all based

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	17
1	here in Colorado, or do you have inspectors that
2	provide assistance with surveillance throughout
3	the country?
4	MR. MONTEITH: There's two what we
5	call RSIs remotely-stationed inspectors. And
6	they are towards the East Coast.
7	DR. RODI: Okay.
8	How is your annual work program
9	determined?
10	MR. MONTEITH: Now under the SAS
11	program, basically it's a risk-based data-
12	supported surveillance program. So based upon
13	the risk I see, we develop data collection tools
14	to go out and survey the operator.
15	DR. RODI: How do you determine what
16	is a risk and what is not a risk?
17	MR. MONTEITH: Based upon the things
18	the operations inspectors are seeing while
19	they're out doing check rides, base inspections,
20	ramp inspections, the feedback I get from them
21	and based upon my own experience and interaction
22	with the operator in developing the systems they

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	18
1	have, identify risk we don't have a large
2	data repository right now in SAS. As we
3	transitioned out of the old MPG into the SAS
4	system, we kind of lost some of that.
5	So really, it's we're looking at
б	old PTRS records the old set program. And it
7	really is just based upon what we're seeing now
8	and my experience with the operator.
9	DR. RODI: How many required work
10	activities or R items are in your annual work
11	program?
12	MR. MONTEITH: There are no more R
13	items under SAS.
14	DR. RODI: Okay. Understand.
15	So can you elaborate the difference
16	between planned and required items that were
17	under the former program and your approach now?
18	MR. MONTEITH: It's it's slightly
19	different. It's based upon risk. There's high-
20	,- medium and low-level risk. And that defines
21	the period 24 months, 12 or six months and how
22	often it appears in what we call the CAP which

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	19
1	is our surveillance plan.
2	So really, there there is no
3	correlation between planned and required anymore
4	under the SAS system. It's all supposed to be
5	data-supported, risk-based surveillance.
6	DR. RODI: Are there any areas of
7	special emphasis outside of risk?
8	MR. MONTEITH: Special emphasis?
9	I I you know again, with
10	the the diverse operation they have, it's
11	their safety programs are integral I think to
12	their entire operation. So I think that is a
13	they have multiple voluntary programs that all
14	have to be looked at. We have to manage those,
15	collect the data, monitor trends. Those are all
16	things that we look at. And most of those come
17	of out of their safety program.
18	So I would say as a special
19	emphasis, their whole safety program is would
20	qualify for that.
21	DR. RODI: How many work hours are
22	spent managing the Air Methods certificate?

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	20
1	MR. MONTEITH: It's almost
2	exclusively what we what I do. The other
3	inspectors, I I don't know. I'm not part of
4	their their hours allocation. The FLM would
5	be the person who could better answer that.
6	DR. RODI: With whom at Air Methods
7	do you normally work with or interact?
8	MR. MONTEITH: Primarily the
9	Director of Operations, Dennis McCall. And the
10	secondary I would say would be Raj Helwick, the
11	chief pilot. Also, I have a relationship with
12	Chris Meinhart, the Director of Maintenance.
13	We have regularly scheduled meetings
14	with them. We interact, and then Dennis and I
15	talk two or three times a week usually. And
16	Raj, probably once a week.
17	DR. RODI: Who signs and approves
18	Air Methods' training procedures and manuals?
19	MR. MONTEITH: I would sign both the
20	approved and accepted.
21	DR. RODI: Have you approved or
22	accepted any manual since you became the PMI?

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	21
1	MR. MONTEITH: Yes. We again, we
2	
3	MR. TOMICICH: You said PMI.
4	DR. RODI: POI. Thank you.
5	MR. MONTEITH: I heard PI. So we
6	have granted initial approval again to the pilot
7	training program. It's a very large program.
8	So we did grant initial approval to that.
9	I have approved their risk analysis
10	program which is a required program now under
11	the new rule. I think we have signed a few
12	checklists over the last year. Those are
13	accepted items, not approved items. And we're
14	currently in the process of reviewing their GON
15	which again is another accepted item and I think
16	I promised that back to the DO by the end of the
17	month.
18	DR. RODI: The checklists that you
19	as POI have accepted, were any related to the
20	AirBus AS-350?
21	MR. MONTEITH: They have recently
22	submitted a few changes to checklists, one of

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	22
1	which is the AS-350.
2	Prior to those, I I couldn't
3	recall over the last year. There's there's a
4	lot of stuff that comes through here.
5	DR. RODI: How many check airmen
6	does Air Methods have or employ?
7	MR. MONTEITH: Between 50 and 55. I
8	can't tell you the exactly number.
9	DR. RODI: And do you play a role in
10	approving these individuals for that position?
11	MR. MONTEITH: Myself or the
12	assistant on my behalf has the ability to
13	approve them yes and sign the letter.
14	DR. RODI: And what association or
15	interaction do you have with the company check
16	airmen?
17	MR. MONTEITH: I, myself, very
18	little. I'm not current they don't keep me
19	current, so I can't go out and actually observe
20	the check airmen.
21	The chief pilot did invite us to
22	their annual E meeting which is their aircraft

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	23
1	check airmen. I couldn't tell you what the E
2	stands for.
3	So we did go. We talked to them.
4	We visited with them a little bit and spent some
5	time with them.
6	So at annual meeting, we review
7	their records when they apply for them or submit
8	them for to be a check airman. And the
9	inspectors themselves on a regular basis are out
10	doing surveillance which are the check airmen
11	observations.
12	DR. RODI: Have you monitored the
13	ground school at Air Methods?
14	MR. MONTEITH: We have, yes.
15	DR. RODI: How often do you do that?
16	MR. MONTEITH: I it's time
17	permitting. If we're not out and about doing
18	actual check rides or observations, we'll
19	we'll go see you know they provide us with
20	the schedule monthly. And they try to go 90
21	days out. And when we have inspectors available
22	and there's a class available, we'll go observe

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24 it. 1 DR. RODI: Do you recall the last 2 3 time that you or someone from your team monitored a ground training program? 4 I would say in 5 MR. MONTEITH: September I believe we went out to \*(10:19:03) 6 7 and observed it. DR. RODI: How would you 8 9 characterize the quality of their training? MR. MONTEITH: Excellent. 10 11 DR. RODI: And have you monitored 12 flight training? MR. MONTEITH: We have. 13 DR. RODI: 14 Okay. 15 How often do you monitor the flight training? 16 It's one of our 17 MR. MONTEITH: 18 primary focuses right now trying to get the 19 pilot training program to final approval. So we 20 spend a significant amount of time watching their flight training. 21 22 DR. RODI: And when was the last

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25 time that you or someone from your team was out 1 2 there? 3 MR. MONTEITH: Within the last two weeks, I would imagine. 4 DR. RODI: Okay. 5 And how would you characterize the 6 7 quality of their flight training? MR. MONTEITH: Generally, excellent. 8 9 DR. RODI: Do you have any concerns right now? 10 11 MR. MONTEITH: With -- real 12 concerns? No. DR. RODI: Do you give or observe 13 proficiency checks? 14 15 MR. MONTEITH: We do. DR. RODI: You specifically or 16 someone from your team? 17 MR. MONTEITH: Someone from my team. 18 19 DR. RODI: And do you personally 20 give or observe line checks? 21 MR. MONTEITH: No. 22 DR. RODI: Do you monitor the

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26 pass/fail ratio of pilot proficiency or line 1 checks? 2 3 MR. MONTEITH: We do. DR. RODI: And do you recall the 4 current ratio? 5 I would say the pass 6 MR. MONTEITH: 7 rate is very high. I cannot give you a specific though. 8 9 DR. RODI: How do you ensure that the Air Methods' training is in compliance with 10 11 the training manuals? 12 Through surveillance. MR. MONTEITH: 13 DR. RODI: Okay. Do you ever receive verbal or 14 15 written concerns about Air Methods' operations 16 directly from their pilots? MR. MONTEITH: Not that I can think 17 18 of, no. 19 DR. RODI: Has anybody from your 20 team? I -- I wouldn't know 21 MR. MONTEITH: -- I wouldn't be able to answer for anybody 22

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1	else.
2	DR. RODI: How do you document the
3	surveillance or observation you do for Air
4	Methods' flight or ground training?
5	MR. MONTEITH: Now through a a
6	thing called a data collection tool. So it's a
7	it's a data collection tool that I create for
8	the inspector to go out and utilize when they
9	conduct surveillance.
10	DR. RODI: And is that filled out
11	every time training is observed?
12	MR. MONTEITH: Yes.
13	DR. RODI: And how do you use that
14	data what's been collected?
15	MR. MONTEITH: It goes through an
16	analysis process. And if there's any negative
17	findings, I can then use those findings to
18	create follow-on surveillance as well as
19	directly contact the operator and raise those
20	concerns.
21	DR. RODI: When was the last time
22	you criticized or required changes to

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1	operational training and check procedures?
2	MR. MONTEITH: I don't know I like
3	the word criticize. I would say we when we
4	find things or we see something that is not in
5	accordance with their training manual, we raise
6	that with the operator.
7	And we have within the last few
8	months found one or two occasions where they
9	were not specifically following their training
10	program. There were minor, nonregulatory issues
11	which were brought to the operator. And I I
12	believe not having completely gone through their
13	latest revision, they have corrected those
14	already. So they're fairly responsible when we
15	bring things to their attention.
16	DR. RODI: Do you ever receive
17	complaints from pilots regarding procedures or
18	trainings at the company?
19	MR. MONTEITH: Have I? No.
20	DR. RODI: Okay.
21	What guidance do you receive from
22	your supervisors regarding the surveillance for

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	29
1	Air Methods?
2	MR. MONTEITH: The supervisor's role
3	in the new system is he has to resource the data
4	collection tools that I create. He doesn't
5	provide input into that actual surveillance, but
6	he approves the surveillance.
7	DR. RODI: Do you receive written
8	reports from Air Methods?
9	MR. MONTEITH: We not
10	specifically, no.
11	DR. RODI: Okay.
12	Do you receive written documentation
13	regarding operations, training or compliance
14	issues from Air Methods?
15	MR. MONTEITH: Now that's fairly
16	broad.
17	I I guess the the written
18	reports is the word that keeps hanging me up
19	here. We don't have a mechanism for them to
20	provide a direct written report to me
21	DR. RODI: Okay.
22	MR. MONTEITH: for those types of
I	I

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	30
1	things.
2	Now, we do get feedback from them,
3	but not a written report per se regarding that.
4	DR. RODI: Okay.
5	To your knowledge, have there been
6	any focused inspections of the National Aviation
7	Safety Inspection Program or the Regional
8	Aviation Safety Inspection Program for Air
9	Methods?
10	MR. MONTEITH: No, not to my
11	knowledge.
12	DR. RODI: Okay.
13	Have there been any focused
14	inspections that you are aware of that were
15	accomplished before you were the POI?
16	MR. MONTEITH: No.
17	DR. RODI: What do you specifically
18	do to check training procedures manuals and
19	checklists to ensure that they're adequate or
20	standardized?
21	MR. MONTEITH: Myself or
22	DR. RODI: Yes.

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1	MR. MONTEITH: Myself, as the work
2	comes in, it'll come to me, goes to the
3	supervisor. It gets distributed amongst the
4	inspectors. They'll review it. They'll provide
5	it back to me. I'll review what they did, look
6	at it myself and then either provide feedback to
7	the operator or accept or approve it based upon
8	what type of document it is.
9	DR. RODI: Are you required for
10	ensuring technical accuracy in any of these
11	procedures or manuals?
12	MR. MONTEITH: Can you define
13	accuracy? What are you looking for there?
14	DR. RODI: So it correlates with the
15	information that may be provided by the air
16	frame or engine manufacturer.
17	MR. MONTEITH: Okay. Yes. And
18	that's part of the process. So an MEL comes in,
19	we'll look at the master MEL, compare it to Air
20	Methods' MEL and ensure that they're they
21	aren't taking anything away from the MEL that
22	that operator or manufacturer provided.

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	32
1	DR. RODI: Do you or anyone within
2	your operations team conduct training at Air
3	Methods?
4	MR. MONTEITH: We have provided some
5	training reference the new surveillance system
б	to them, not to qualify them per se, but to let
7	them know how the new surveillance system is
8	going to work so when inspectors show up, they
9	understand how the process works.
10	DR. RODI: How would you
11	characterize the level of standardization of Air
12	Methods' training procedures, manuals or
13	checklists?
14	MR. MONTEITH: I'd say it's very
15	dod.
16	DR. RODI: Had you done any in route
17	inspections to observe operations prior to the
18	accident?
19	MR. MONTEITH: Prior to becoming the
20	POI, yes.
21	DR. RODI: And did you have any
22	concerns during those in route inspections?

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1	MR. MONTEITH: No. And to be more
2	clear, it's I think we called it line checks.
3	It's a a 299 135-299, not a specific in
4	route.
5	DR. RODI: Okay.
б	What were your items of concern with
7	Air Methods prior to the accident?
8	MR. MONTEITH: Again, I would say as
9	the new POI, I didn't have any glaring concerns
10	other than just trying to get a handle on the
11	scope of the operator, how we're conducting
12	surveillance and make sure that you know I
13	I understand their operation and we're
14	conducting good surveillance so we can again,
15	assist them in achieving that highest degree of
16	safety and be in regulatory compliance. Nothing
17	specific per se though.
18	DR. RODI: How were you informed
19	about the accident in Frisco?
20	MR. MONTEITH: By the Director of
21	Operations.
22	DR. RODI: Did he call you, send you

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1	a text message or send you an email?
2	MR. MONTEITH: He called me.
3	DR. RODI: Did you review any
4	reports, records or documentation following the
5	accident?
6	MR. MONTEITH: They have what they
7	call a *(10:28:05) which is the additional
8	report referenced the incident or accident. He
9	did send me that, yes.
10	DR. RODI: And was there anything
11	that concerned you when you received that?
12	MR. MONTEITH: It's immediately
13	after the accident, so without really
14	outstanding anything, no. I mean, an accident
15	obviously is reason for concern. But
16	specifically, no.
17	DR. RODI: Did you know the accident
18	pilot?
19	MR. MONTEITH: I did.
20	DR. RODI: And did you have any
21	concerns about his ability or his performance?
22	MR. MONTEITH: No. I found Pat to

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1	be I had experience with him. He was the
2	union representative on on that event review
3	committee for their ASAP program.
4	And prior to becoming the POI, I
5	also was a member of that for the FAA. And I
6	found him to be a very level-headed, competent,
7	experienced cautious pilot.
8	DR. RODI: Have you ever visited the
9	Frisco base?
10	MR. MONTEITH: Myself personally,
11	no.
12	DR. RODI: And why not?
13	MR. MONTEITH: I it hasn't been
14	necessary for me.
15	DR. RODI: Do you have any
16	experience or familiarity with the Airbus AS-350
17	with the different variance, make, model type?
18	MR. MONTEITH: Basic familiarity,
19	yes.
20	DR. RODI: And any flight
21	experience?
22	MR. MONTEITH: No.

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1	DR. RODI: Are you familiar with the
2	differences in the single- versus dual-
3	hydraulics with the Airbus?
4	MR. MONTEITH: For someone not
5	qualified on that airplane, yes.
б	DR. RODI: Okay.
7	Since the accident, have you
8	modified your surveillance of Air Methods?
9	MR. MONTEITH: I wouldn't say we
10	modified our surveillance, no.
11	DR. RODI: Since the accident, have
12	you requested any changes to the company's
13	operational procedures?
14	MR. MONTEITH: Have I requested
15	changes? No.
16	DR. RODI: What is the FAA's
17	position with regards to safety information
18	notices or service bulletins that come out from
19	manufacturers?
20	MR. MONTEITH: We as the certificate
21	management team are not of initial distribution
22	of those types of I guess bulletins or or

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1	documents. We kind of have to find them. You
2	can check the Federal Register, look for those
3	things. And we do periodically do that. But I
4	would not say that's part of my regular daily
5	routine.
6	If something does come out that is
7	relevant to their operation, typically the DO
8	who is on their *(10:30:43) now will send it to
9	me so I can be familiar with it. Or if anybody
10	else on the team, we we share it you know
11	fairly well amongst both the air worthiness
12	and the operation inspectors.
13	DR. RODI: Do you have expectations
14	or requirements as far as Air Methods is
15	concerned when they receive the same information
16	from manufacturers?
17	MR. MONTEITH: I guess you'd have to
18	define expectations.
19	DR. RODI: Is there something that
20	the FAA requires or anticipates that an operator
21	will do when they receive this information from
22	a manufacturer?

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1	MR. MONTEITH: If it's not an air
2	worthiness directive which they're mandated to
3	do in which then we would have a vested interest
4	in. If it's just a voluntary bulletin or a
5	safety alert, it's they they get them.
6	So under their new process in
7	talking with their Director of Operations, he's
8	now on the distribution list of anything that
9	comes in. So I guess that would be my
10	expectation so he can apply that operational
11	mind set to any of those things to see if
12	they're relevant outside of perhaps an air
13	worthiness perspective.
14	DR. RODI: Were you familiar with
15	the safety information notice or service
16	bulletins that came from Airbus Helicopters
17	regarding the dual-hydraulics operations with
18	the AS-350?
19	MR. MONTEITH: Prior to the
20	accident, no.
21	DR. RODI: And were you aware of the
22	Temple, Texas incident involving the hydraulic

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39 isolation switch, also operated by Air Methods? 1 2 MR. MONTEITH: I was aware of it, 3 yes. DR. RODI: And were you involved in 4 that incident investigation or aware of any 5 actions or concerns that were brought out in 6 7 that investigation? MR. MONTEITH: I was not part of 8 9 that, no. Following the accident, 10 DR. RODI: 11 several employees at Air Methods left or were 12 let qo, including the vice president of safety and the senior director of safety. Did this 13 14 departure concern you? 15 MR. MONTEITH: Yes. 16 DR. RODI: And what reasons were you given for their departure? 17 MR. MONTEITH: Those two individuals 18 19 both directly told me that they were -- they 20 found other jobs that they were interested in 21 pursuing. 22 DR. RODI: We understand that

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1	shortly following their departure that there was
2	a round table meeting or discussion that
3	involved both the FAA and Air Methods. Did you
4	take part in that meeting?
5	MR. MONTEITH: I did.
6	DR. RODI: Okay.
7	And what were the results of that
8	meeting?
9	MR. MONTEITH: There there were
10	many. It was a it was all-day meeting.
11	There were a lot of we we referred to it
12	as somewhat of a gap analysis meeting you
13	know kind of in the spirit of SMS to
14	identify perhaps gaps in their safety system now
15	since some of the key individuals have left.
16	And we spent a significant amount of
17	time. And some things were identified. And I
18	believe the DO was and the acting director of
19	safety, Shelton Bair, were going to take those
20	forward.
21	DR. RODI: I'm going to open it up
22	to my colleagues to see if they have any

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1	questions.
2	Chihoon?
3	NTSB INVESTIGATOR SHIN: I just have
4	one question.
5	When surveilling pilots, have you
6	observed pilots sneaking off without verifying
7	controllability of the helicopter prior to
8	completing the take off? And by verifying
9	controllability, I mean more of the idea of
10	putting the helicopter in a low hover three
11	or five feet and verifying that you have
12	pedal control selected and *(10:34:35) control
13	prior to take off.
14	MR. MONTEITH: Have I personally?
15	No.
16	NTSB INVESTIGATOR SHIN: Okay.
17	Thank you.
18	That's all I have.
19	DR. RODI: Matt?
20	FAA INVESTIGATOR RIGSBY: Okay.
21	Eric, you said you personally had
22	not visited the Frisco base.

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1	MR. MONTEITH: Correct.
2	FAA INVESTIGATOR RIGSBY: Had
3	someone on your team visited and provided
4	surveillance at the Frisco base?
5	MR. MONTEITH: We have visited the -
6	- yes.
7	FAA INVESTIGATOR RIGSBY: Okay.
8	Within the last year?
9	MR. MONTEITH: I would have to
10	verify a date.
11	FAA INVESTIGATOR RIGSBY: Okay.
12	You have not personally given Pat a
13	check, right?
14	MR. MONTEITH: Correct.
15	FAA INVESTIGATOR RIGSBY: Okay.
16	You said you were designated eight
17	operations inspectors?
18	MR. MONTEITH: I have eight
19	operations instructors on the operations team.
20	Yes.
21	FAA INVESTIGATOR RIGSBY: Okay.
22	Are all of them, including yourself,

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1	currently qualified in all 24 to 27 models of
2	aircraft that Air Methods flies?
3	MR. MONTEITH: They are not. Not
4	all of them are even capable right now of going
5	out and conducting checks for Air Methods due to
6	the lack of currency or qualification.
7	FAA INVESTIGATOR RIGSBY: Okay.
8	Is that lack of currency due to lack
9	of training?
10	MR. MONTEITH: In many cases, yes.
11	We some of them Air Methods is
12	100 percent NBG. We have it has been decided
13	at some level that we're only authorized eight -
14	- or excuse me six NBG-qualified inspectors
15	to go out and do surveillance. So right away,
16	two of my inspectors are very significantly
17	loaded in the type of checking or surveillance
18	they can do with the aircraft.
19	About the only daytime check ride we
20	would perform would be a 297-135 297 which is
21	the instrument check ride. Almost everything
22	else is exclusively conducted at night.

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1	As far as qualification or
2	experience on the myriad of airframes that Air
3	Methods operates, we used to attend courses
4	which would send us through what they would call
5	a qualification course so we would have
6	familiarity with that airframe so when we were
7	out conducting check rides, it's it's a far
8	better obviously, you can do a far better job
9	if you're familiar with the aircraft.
10	And we no longer are authorized to
11	do that. So they have several in today's day
12	and age where you would be calling technically-
13	advanced aircraft which are *(10:37:11), Glass
14	Air Glass Aircraft, multi-engine, complex
15	systems which the inspectors have no experience
16	on whatsoever. Yet we still go out and conduct
17	surveillance on those.
18	Primarily check airmen is about all
19	I'm relegated to right now with the number of
20	people I have qualified to actually go out and
21	conduct check rides. We do they have like
22	I say, I want to say it's between 50 and 55. I

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1	don't have the exact number. I apologize.
2	And every 24 months, those check
3	airmen are required an observation. So if you
4	halve that you know every year, we have to
5	do roughly 27, 28 observations on the check
б	airmen.
7	Ultimately, for me as a POI, what I
8	would like to do is take sampling of the the
9	line pilots because I think that's where we're
10	going to actually determine what you know
11	are they standard, are they following
12	checklists?
13	You'll watch in the check airmen,
14	which is the best of the best you know
15	ultimately for that operator doesn't to me give
16	me the best sampling of the actual line pilot in
17	day-to-day operations. Unfortunately, I just
18	can't get there with the number of inspectors I
19	have that are trained to go out and do it.
20	FAA INVESTIGATOR RIGSBY: You said
21	there were eight allotted to the eight
22	inspectors.

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1	MR. MONTEITH: I have eight
2	currently. Yes.
3	FAA INVESTIGATOR RIGSBY: How many
4	are allotted? Are you allowed to have more
5	inspectors?
6	MR. MONTEITH: I I don't have
7	access to the the manning document.
8	What I can tell you is based upon
9	the recent movements, I've had two retirements -
10	- or not me, personally. But there's been two
11	retirements on the team which my FLM, Stan
12	front-line manager Stan *(10:38:48) just told me
13	we're authorized to backfill. So I believe
14	we're authorized at least two more on the team.
15	FAA INVESTIGATOR RIGSBY: Of the
16	operations inspectors that are on your team, do
17	they have other duties outside of the Air
18	Methods certificate?
19	MR. MONTEITH: Yes. We're we're
20	GA inspectors in this office. So we do all the
21	GA work. You have walk-in duty, accident duty,
22	pilot deviations, check rides for operators that

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1	are in this office as well as the national
2	*(10:39:19) system which is and I apologize;
3	I don't know what the acronym technically stands
4	for we are kind of for the most part the
5	helicopter experts for the FAA.
6	For example, this week, there's
7	three of the inspectors out doing check rides
8	for other operators. So basically you're out of
9	pocket for almost a full week by the time you
10	travel, get there, do check rides, debrief and
11	come back.
12	So yes, we have a significant number
13	of other duties other than just Air Methods.
14	FAA INVESTIGATOR RIGSBY: Has Air
15	Methods experienced delays in their training or
16	approval of documents and that type of thing due
17	to a manpower shortage?
18	MR. MONTEITH: I would say you could
19	probably better ask Air Methods that.
20	I would say we had a challenge with
21	Rev 8 of the GOM a while back. I don't believe
22	as long as I've been in here as the POI we've

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1	had any significant delays. We sometimes
2	with documents, we do sometimes run into
3	challenges with scheduling check airmen
4	observations just due to availability of
5	inspectors. There was a brief period of time
6	for you know brief I guess *(10:40:30) and
7	FAA for four, five, six months where we only
8	have one qualified inspector on the entire team.
9	FAA INVESTIGATOR RIGSBY: Okay.
10	I'm going to jump gears.
11	Back on the training, what's the
12	process for you to submit your training requests
13	so you can get qualified current and
14	qualified?
15	MR. MONTEITH: We they kind of
16	have their open season where our front-line
17	manager asks us to submit to him our requests
18	for training that we believe we need in order to
19	be able to do our job or become better and
20	enhance our ability to do our job.
21	So we submit that list to our front-
22	line manager which we did I think about two

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1	weeks ago. And then he either submits them or -
2	- or culls them out according to whatever
3	guidance he might have.
4	But that's how we as an inspector, I
5	would request of him I need the AS-350
6	qualification course or the EC-135. I need the
7	helicopter oversight or whatever courses I
8	believe would help me do my job better.
9	FAA INVESTIGATOR RIGSBY: And have
10	you submitted those requests
11	MR. MONTEITH: I have.
12	FAA INVESTIGATOR RIGSBY: and
13	have they been granted?
14	MR. MONTEITH: They have not.
15	FAA INVESTIGATOR RIGSBY: Okay.
16	MR. MONTEITH: Well, let me be clear
17	on that.
18	None of the flight flight program
19	requests have been approved. Other requests
20	have.
21	FAA INVESTIGATOR RIGSBY: Are you
22	provided feedback on why they're not approved?

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1	MR. MONTEITH: No.
2	FAA INVESTIGATOR RIGSBY: Okay.
3	You mentioned SAS. What does that
4	stand for on risk-base?
5	MR. MONTEITH: Safety Assurance
6	System.
7	FAA INVESTIGATOR RIGSBY: And you
8	also talk about ow operators are classified by
9	risk by low, medium or high.
10	MR. MONTEITH: Well, I was probably
11	unclear on that.
12	The the data collection tool is
13	classified as a high, medium or low that we
14	utilize. And that level of risk defines how
15	frequently we have to accomplish that particular
16	data collection tool.
17	FAA INVESTIGATOR RIGSBY: Okay.
18	And this isn't limited just to Air
19	Methods. But are you aware on how the
20	helicopter air ambulance is categorized as far
21	as risk level?
22	MR. MONTEITH: I I'm not sure I

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1 understand the question.

	-
2	FAA INVESTIGATOR RIGSBY: The type
3	of operations an helicopter air ambulance does,
4	how many other operators go into unknown areas
5	where there's maybe obstacles of wires,
6	unprepared surfaces
7	MR. MONTEITH: All I can do is tell
8	you based upon my experience, having been an
9	airplane 121 pilot flying airport to airport
10	with a dispatcher providing me weather and
11	myriads of resources available to me in a fairly
12	generic ADB flight versus my experience both in
13	the military and with Air Methods where you
14	it's a very diverse type of operation where you
15	do offsite landings in unknown areas, unprepared
16	areas. So I would say if you're asking my
17	opinion, it is a far riskier operation than a
18	typical 121 operator, even a 135 operator that
19	wasn't doing offsite landings.
20	FAA INVESTIGATOR RIGSBY: You
21	mentioned you were with the U.S. Army. Are you
22	a helicopter pilot?

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1	MR. MONTEITH: I am.
2	FAA INVESTIGATOR RIGSBY: Okay.
3	What type of airframes are you
4	qualified for?
5	MR. MONTEITH: I've flown UH-1s
6	which is the Huey H-1s, the Cobra, OH-6s which
7	is the MD-500, Bell 206s which is the
8	*(10:44:14), Black Hawks, the S-70, I think they
9	call that now whatever the type version is of
10	that. Had a very little time in Chinooks.
11	FAA INVESTIGATOR RIGSBY: Okay.
12	You also mentioned about like the
13	checklists and the manuals. Some are approved
14	and some are accepted. What's the difference
15	between approved and accepted?
16	MR. MONTEITH: Well, the approved
17	document or program means they can't use it
18	until it's actually approved. And accepted
19	document, technically, they can use it even if
20	it hasn't been accepted yet.
21	What I without being able to read
22	the definition, basically my belief is that it

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1	approves something is something we have to have
2	direct oversight of, whereas accepted is it's
3	kind of our way to have input into that process.
4	FAA INVESTIGATOR RIGSBY: Okay.
5	MR. MONTEITH: So approved, they
б	cannot use until it's actually signed and
7	approved.
8	FAA INVESTIGATOR RIGSBY: Okay.
9	Does the CMT participate in these
10	I think I heard from Air Methods that their
11	safety concern meetings where items are brought
12	up as they have their independent reporting
13	system and things get reported to the safety
14	department or to the DO the director of
15	operations or their chief pilot. Do you guys
16	participate in those meetings?
17	MR. MONTEITH: The meetings that we
18	currently have been participating in with Air
19	Methods was on a monthly basis their ASAP
20	program. And when I say ASAP, that's the
21	overall program which includes both a pilot and
22	a mechanic event review committee. Their

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1	voluntary disclosure program the VDRP
2	obviously we're part of that program since we
3	have they have to come to the principal
4	operating inspector.
5	For a while, we were invited to
6	attend semi-frequent meetings for their SMS
7	program their safety program. But I would
8	say over the last year, our involvement has been
9	very low as far as being invited to participate
10	in those types of events.
11	FAA INVESTIGATOR RIGSBY: Okay.
12	Do you have any idea on reason for
13	that?
14	MR. MONTEITH: I would again, my
15	opinion would be that there is a degree of
16	either mistrust or I guess that's probably
17	the best way to phrase it.
18	From someone in a position of authority where
19	a direct example that I was involved with is I
20	asked for data reference of ASAP program to
21	provide feedback to the inspectors at our annual
22	meeting where we all get together. And I was

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1	directly told no.
2	FAA INVESTIGATOR RIGSBY: Okay.
3	Were you aware of some issues before
4	the accident concerning the AS-350 hydraulic
5	checklist or the checklist with the 350? I'm
6	sorry.
7	MR. MONTEITH: Could you ask me that
8	again?
9	FAA INVESTIGATOR RIGSBY: Sorry.
10	Before the accident at Frisco, were
11	you aware of any concerns brought forward to Air
12	Methods in reference to the checklist?
13	MR. MONTEITH: Was I aware? No.
14	FAA INVESTIGATOR RIGSBY: Okay.
15	Have you been informed of any
16	changes since the accident that Air Methods has?
17	MR. MONTEITH: They have recently
18	submitted like I said an AS-350 checklist
19	for change. I think it came in the week before
20	last, and I was out last week. So I know the
21	inspector who reviewed it has completed it. And
22	when I'm done with this this week, we'll

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1	we'll look at that and hopefully get it signed
2	and accepted and back to Air Methods.
3	But I personally have not reviewed
4	it yet.
5	FAA INVESTIGATOR RIGSBY: Okay.
6	Have you personally ever heard of
7	anything called a corkscrew departure?
8	MR. MONTEITH: I I've heard it
9	referred to. Yes.
10	FAA INVESTIGATOR RIGSBY: Okay.
11	That's all I have.
12	DR. RODI: Thank you.
13	Dennis, do you have any questions?
14	MR. McCALL: I do have a couple.
15	Thank you.
16	Hi, Eric. Dennis McCall here.
17	MR. MONTEITH: Hey, Dennis.
18	MR. McCALL: Historically, Air
19	Methods has had trouble getting documents
20	accepted or approved. Is it your opinion that
21	that's due to staffing issues? Or could it be
22	something else?

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1	MR. MONTEITH: Without specifically
2	knowing what documents are being referred to,
3	the only one I have personal familiarity with
4	was the GON Rev 8 where a a principal/front-
5	line manager had an issue I believe with a
6	procedure in that manual dealing with duty time
7	and was unwilling for that manual to leave the
8	office as it existed.
9	Other than that, that is my only
10	personal familiarity with documents leaving the
11	office.
12	MR. McCALL: Okay. Do you know how
13	long it took to get that manual accepted?
14	MR. MONTEITH: I don't know that it
15	ever was accepted.
16	MR. McCALL: Right.
17	MR. MONTEITH: If it was, it must
18	have happened while I was on my last deployment
19	because when as of when I left, it was not.
20	And now we have Rev 9 which was submitted to me.
21	So I know we have Rev 9.
22	MR. McCALL: Okay.

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1	And in reference to FAA supporting
2	Air Methods with check airmen, do you recall any
3	conversations where it was said that the FAA was
4	not going to be able to possibly conduct check
5	rides for us in the future?
6	MR. MONTEITH: Yes. I there was
7	and not too long after I became the
8	principal, there was some discussion about us
9	getting out of that business. And honestly, I
10	wasn't part of those discussions. I believe
11	that was at levels above me. But I know there
12	was a concern with qualification and currency of
13	inspectors being able to actually go out and do
14	that.
15	But I'm not intimately familiar with
16	that discussion.
17	MR. McCALL: Okay.
18	And the last thing I have, Eric, is
19	are you familiar with these two terms PAIP
20	and AIDMORE?
21	MR. MONTEITH: Yes.
22	MR. McCALL: Could you describe what

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1	they mean to you?
2	MR. MONTEITH: The P PAIP is what
3	I alluded to earlier that typically well,
4	I'll just say you since you're the DO would
5	provide me when an incident occurs. Regardless
6	I think of the severity you guys create one of
7	those. And based upon your and my agreement,
8	you have been providing me those almost
9	immediately upon that incident happening so I
10	could then pass it up the food chain here on the
11	FAA so everybody's at least aware of what's
12	going on.
13	The AIDMORE is I'm not as
14	familiar with that. That is an internal report
15	to your organization at Air Methods where the
16	pilots or actually anybody reports issues,
17	concerns or incidents internally.
18	MR. McCALL: Okay.
19	And would you agree or disagree that
20	I provide you with these PAIPs and sometimes
21	AIDMOREs because we have the level of trust, and
22	some of these are not even reportable items,

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1	just for information that I think you should
2	have.
3	MR. MONTEITH: I would say that the
4	vast majority of the ones you have provided me
5	are nonregulatory or required items. It is
6	purely so you can keep me informed as the
7	principal as to things that are happening at
8	your certificate.
9	And I would say yes, it probably has
10	a large degree to do with the level of trust
11	that you and I have and the relationship we have
12	as the POI and the DO.
13	MR. McCALL: Okay. Thank you.
14	I don't have any other questions.
15	DR. RODI: Thank you.
16	Ed?
17	PARTICIPANT: I think Ed had to drop
18	off line.
19	DR. RODI: Okay.
20	Is it Seth?
21	MR. BUTTNER: Yes, it is.
22	I don't think I have any other

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1	questions.
2	DR. RODI: Okay. Thank you.
3	Bryan?
4	MR. LARIMORE: No, I don't have any
5	questions. Thank you.
6	DR. RODI: Okay.
7	So I'm going to follow up on a
8	question that Matt asked you.
9	Is there any training that you feel
10	that your inspectors need to do their job that
11	they're not currently getting?
12	MR. MONTEITH: I would say that all
13	the inspectors on the Air Methods team ought to
14	go through airframe qualification courses to be
15	more familiar with the aircraft we're required
16	to go out administer check rides on.
17	It and again, I'll just this -
18	- this would be purely my opinion. Now having
19	lived in the 121 world where you conduct OE and
20	line checks sitting in a jump seat between two
21	fully qualified crew members going A to B in a
22	very structured environment, for an inspector to

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1	go out administer check rides under night-vision
2	goggles with low illumination on an aircraft
3	he's not intimately familiar with, I would say
4	there's a high degree of risk there. And since
5	we're in the business of safety, I think the
6	best way to mitigate that risk to qualify our
7	inspectors to actually go out and do that.
8	Getting to the sampling of check
9	rides I believe we ought to be doing to be able
10	to determine you know in any any
11	given surveillance, I think it's a reasonable
12	expectation that you do a sampling of check
13	rides to get an idea of standardization,
14	qualification and the effectiveness of their
15	training program.
16	And I personally would not be
17	comfortable for an inspector who's never sat in
18	an AS-350, let alone an AS-350 B3E with a dual
19	hydraulic system to actually go out and have to
20	administer an initial check ride to an Air
21	Methods pilot who hasn't even completed the
22	training program yet because that is the

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63 completion of the training program. 1 I would -- I think that inspector 2 3 absolutely needs to go through a qualification Ideally, I would have a group of 4 course. qualified inspectors on different airframes that 5 would go out and administer those check rides on 6 7 those airframes ensuring the highest degree of safety. 8 9 DR. RODI: Is there anything that you think that we need to be aware of that we 10 11 didn't specifically ask or query about today? 12 MR. MONTEITH: I don't believe so. 13 No. FAA INVESTIGATOR RIGSBY: 14 One 15 follow-up on the training question. MR. MONTEITH: 16 Yes? FAA INVESTIGATOR RIGSBY: Has Air 17 Methods offered to allow you to participate in 18 19 their inhouse training? 20 MR. MONTEITH: The Director of Operations has directly told me he will allow 21 22 any of our inspectors to go through their

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	64
1	qualification course on any of their airframes.
2	Yes.
3	FAA INVESTIGATOR RIGSBY: Okay.
4	And is your management supportive of
5	that? Or have there been
6	MR. MONTEITH: I don't know how
7	supportive or unsupportive they are. The answer
8	to this date has been no for whatever reason
9	whether it's a financial, a liability or I
10	don't know why that is but the answer to this
11	date has been no, we are not allowed to do that.
12	FAA INVESTIGATOR RIGSBY: Okay.
13	I'm done.
14	DR. RODI: Any other questions?
15	(No audible response.)
16	DR. RODI: Excellent.
17	On behalf of the NTSB, I'd like to
18	extend my condolences for the loss of your
19	colleague.
20	You have my contact information. If
21	you need anything, don't hesitate to reach out
22	if you have questions regarding the accident

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		65
1	investigation or need anything.	
2	MR. MONTEITH: Okay.	
3	DR. RODI: All right. Thank you.	
4	MR. MONTEITH: Thank you.	
5	(Whereupon, at 10:55 a.m, the	
6	interview was concluded.)	
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Eric Monteith

DATE: 10-27-15

I hereby certify that the attached transcription of page 1 to 66 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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THE AIRCRAFT ACCIDENT THAT : NTSB Accident No. OCCURRED IN FRISCO, COLORADO : CEN15MA290 ON JULY 3, 2015 : :

Interview of: STANLEY R. HAYNES

Tuesday, October 27, 2015

Denver, Colorado

BEFORE

JENNIFER S. RODI, Ph.D., Investigator in Charge, NTSB MATTHEW RIGSBY, FAA KATHERINE WILSON, NTSB

#### **APPEARANCES:**

### On Behalf of the Interviewee:

MARK A. TOMICICH, ESQ. Office of the Chief Counsel Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591 202-385-8230

On Behalf of Air Methods:

DENNIS MCCALL Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

ED STENBY Air Methods 7211 S. Peoria Englewood, Colorado 80112 303-792-7400

On Behalf of Turbomeca USA:

BRYAN LARIMORE Turbomeca USA 2709 N. Forum Drive Grand Prairie, Texas 75052 972-606-7600

On Behalf of Airbus Helicopters, Inc.:

SETH BUTTNER Airbus Helicopters, Inc. 2701 N. Forum Drive Grand Prairie, Texas 75052 972-641-0000

	3
1	P-R-O-C-E-E-D-I-N-G-S
2	(11:11 a.m.)
3	DR. RODI: May I call you Stan?
4	MR. HAYNES: Please.
5	DR. RODI: Excellent.
6	So I'm Jennifer Rodi. I'm the
7	Investigator in Charge for the accident
8	investigation for Frisco, Colorado that happened
9	on July 3rd of 2015.
10	And you know Mr. Matt Rigsby. I
11	will introduce my colleagues that are still with
12	us on the telephone.
13	We have Katherine Wilson with the
14	National Transportation Safety Board; Dennis
15	McCall, he's the Director of Operations at Air
16	Methods; Ed Stenby, he's a line pilot and union
17	representative at Air Methods; Seth Buttner, the
18	airframe manufacturer Airbus Helicopter; and
19	Bryan Larimore with Turbomeca.
20	So we're here in the furtherance of
21	the accident investigation in Frisco, Colorado.
22	The interview that we're conducting with you

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1	today and then some of your colleagues is in the
2	furtherance of safety and has absolutely nothing
3	to do with liability, blame or fault, nor will
4	any portion of our accident investigation
5	address that.
6	The NTSB cannot guarantee
7	confidentiality or immunity in any of the
8	discussions of our interview today. And a
9	transcript or summary of the interview will be
10	part of the public record or public docket once
11	the accident investigation is complete.
12	Any questions with that regard?
13	MR. HAYNES: No.
14	DR. RODI: Okay.
15	You're entitled to one
16	representative for the interview today. Who do
17	you choose?
18	MR. HAYNES: I guess him.
19	DR. RODI: Okay.
20	MR. TOMICICH: And for the record,
21	he's pointing to counsel, Mark Tomicich.
22	DR. RODI: And as a reminder, you

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	5
1	cannot testify or answer questions for him
2	today.
3	MR. TOMICICH: Okay.
4	DR. RODI: All right. Do you
5	understand the process of an NTSB accident
6	investigation and the role of party members,
7	accredited representatives or technical
8	liaisons?
9	MR. HAYNES: Yes.
10	DR. RODI: Okay. Do you want me to
11	review or remind you of any aspect of that?
12	MR. HAYNES: I don't think so.
13	DR. RODI: Okay.
14	So we have party members, president
15	and technical liaisons available on the phone.
16	I will conduct the interview today.
17	And then when I'm finished with my questions for
18	you I will open it up to them to see if they
19	have any additional or follow-up clarification
20	or questions in their role to provide technical
21	expertise and ensure that we have a complete and
22	thorough investigation.

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	6
1	When you answer questions, just
2	answer to the best of your recollection. If you
3	need anything clarified, if you need me to
4	repeat the question, just ask me.
5	MR. HAYNES: Okay.
6	DR. RODI: I'll be happy to do so.
7	And then if you can abstain from
8	nodding your head yes or no, because we're
9	having it transcribed. It's a little difficult
10	to capture that
11	MR. HAYNES: Okay.
12	DR. RODI: in a transcript.
13	And I'll try to stay on that if it
14	ever becomes an issue.
15	MR. HAYNES: Okay.
16	DR. RODI: So anything else before
17	we get started?
18	MR. HAYNES: No.
19	DR. RODI: Okay.
20	If you could state your name, first
21	and last, middle initial and then your current
22	title or position with the FAA.

	7
1	MR. HAYNES: It's Stanley R. Haynes
2	H-A-Y-N-E-S. I'm a front-line manager on the
3	Air Methods certificate for the Denver FSDO.
4	DR. RODI: Okay.
5	And can you give me a general
6	overview of your aviation background and
7	qualifications?
8	MR. HAYNES: Wow.
9	I was originally certificated in
10	1967, I believe about that time frame. I've
11	had various jobs in 135 or 91 and some 121
12	experience. I've held positions as chief pilot
13	for for a Fortune 500 company. I was chief
14	pilot for a police department, various 135
15	companies. I've managed a 141 school.
16	I've been with the FAA for
17	approximately six years.
18	DR. RODI: What aircraft are you
19	rated or qualified on?
20	MR. HAYNES: I'm rated in a a
21	Metroliner, an Eclipse Jet, Hawker Jet
22	there's one more Citation Jet.

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	8
1	DR. RODI: And what certificates and
2	ratings do you hold?
3	MR. HAYNES: I hold an ATP multi-
4	engine land, all my flight instructions and I
5	hold a ground instructor certificate.
6	DR. RODI: Are you certified or
7	qualified in helicopters?
8	MR. HAYNES: No, ma'am.
9	DR. RODI: And you said that you've
10	been with the FAA for six years now?
11	MR. HAYNES: Yes.
12	DR. RODI: How long have you been a
13	manager?
14	MR. HAYNES: A little over three.
15	DR. RODI: Okay.
16	And what are you responsibilities as
17	a manager?
18	MR. HAYNES: I manage the the
19	operations unit of the Air Methods certificate.
20	I make sure that all the when work comes in
21	that it's it's assigned out to the
22	appropriate inspectors for completion, the

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9 and when they're through with the paperwork in 1 the process -- you know -- for whatever work is 2 assigned to them, I review it for consistency, 3 accuracy, that it meets the guidance and -- and 4 stays within the -- the regulations. 5 How many people report 6 DR. RODI: 7 directly to you? At the present time, MR. HAYNES: 8 9 there's 11, I believe. I have three vacancies within the unit. 10 11 DR. RODI: So if those vacancies 12 were filled then it would be more than 11 individuals? 13 Yes, it would. 14 MR. HAYNES: Yes. 15 DR. RODI: Okay. 16 And do you have any experience as a principal operations inspector or a POI? 17 MR. HAYNES: Yes, ma'am. 18 19 DR. RODI: How long did you hold 20 that position? I held that position 21 MR. HAYNES: 22 for roughly three years prior to the position

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	10
1	I'm in now.
2	DR. RODI: And any involvement in
3	that position with Air Methods?
4	MR. HAYNES: No.
5	DR. RODI: Okay.
6	Did you ever serve as an inspector
7	for the Air Methods certificate?
8	MR. HAYNES: No, ma'am.
9	DR. RODI: In the performance of
10	your duties, is there any one area where you
11	spend the majority of your time?
12	MR. HAYNES: Just not just normal
13	duties. I don't know I understand the question.
14	DR. RODI: Is there something within
15	your duty that you spend more time on the
16	management of resources, human resources,
17	specific operators, specific concerns?
18	MR. HAYNES: The only operator that
19	I work with is Air Methods.
20	DR. RODI: Okay. Understood.
21	Prior to the accident, what was your
22	biggest area of concern with Air Methods?

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	11
1	MR. HAYNES: Prior to the accident,
2	I don't think at that time there were any really
3	big concerns to my knowledge concerning Air
4	Methods.
5	DR. RODI: With whom at Air Methods
6	do you normally work with or interact with?
7	MR. HAYNES: I interact with the
8	Director of Operations and the the chief
9	pilot mainly.
10	DR. RODI: And what role do you play
11	in the approval or acceptance of procedures
12	manuals or checklists at Air Methods?
13	MR. HAYNES: Well, when the the
14	work comes into the office, it's assigned to a
15	principal inspector and he has overall
16	responsibility for it. And from there, it's
17	assigned to the inspector that's going to work
18	it.
19	DR. RODI: So do you assign it to
20	the principal and then he assigns it? Or can
21	you elaborate on how
22	MR. HAYNES: No, he can't he does

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	12
1	not assign work. I will assign it to the the
2	inspectors that will will work on it.
3	DR. RODI: And how do you determine
4	what you assigned to which instructor?
5	MR. HAYNES: Well, some of it's
б	workload-based. And some of it is that we have
7	since I've been with Air Methods, we've
8	we've got some some inspectors who work
9	certain areas for for familiarity and
10	workflow.
11	Take for example the MELs. We
12	we've got one ops inspector, one airworthiness,
13	one avionic that are assigned to work those. So
14	there when it comes in, it's assigned to the
15	principals and to those three inspectors. We
16	found that the the manuals they the
17	work gets completed and out of the office faster
18	than the way it was being done previously. It's
19	streamlined it.
20	DR. RODI: And when did that change
21	take place?
22	MR. HAYNES: Oh, it's been about two

	13
1	years ago a little over two years ago.
2	DR. RODI: Okay.
3	Have you ever attended or surveilled
4	training at Air Methods?
5	MR. HAYNES: Personally, I have not.
6	DR. RODI: Have you ever served in
7	the capacity of a check airman at Air Methods?
8	MR. HAYNES: At Air Methods, no, I
9	have not.
10	DR. RODI: Have you received verbal
11	or written concerns about Air Methods'
12	operations from their pilots?
13	MR. HAYNES: Have I? No.
14	DR. RODI: What guidance do you
15	provide that your principal operations inspector
16	or the certificate management team regarding the
17	surveillance of Air Methods?
18	MR. HAYNES: Well, the surveillance
19	is pretty much spelled out between SAS and the -
20	- the 8900 guidance. And that's pretty much
21	what we follow.
22	DR. RODI: Are you involved in the

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	14
1	annual review of the SAS program?
2	MR. HAYNES: No. We've only been
3	operating under SAS since I believe January of
4	this year.
5	DR. RODI: Understand.
б	Will there be an annual review of
7	that program come December or January?
8	MR. HAYNES: I do not have that
9	knowledge.
10	DR. RODI: Are you aware of any
11	focused inspections that have taken place at Air
12	Methods on either a regional or a national
13	level?
14	MR. HAYNES: No, I am not personally
15	aware.
16	DR. RODI: Okay.
17	What specific oversight activities
18	do you expect from the principal operations
19	inspector or the certificate management team to
20	ensure adequate oversight?
21	MR. HAYNES: Well, we're under a
22	risk-based surveillance program now. So they

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	15
1	they collect the information, and if there's a
2	risk, then I expect them to surveil it according
3	to the guidance so that it is adequately
4	surveilled.
5	DR. RODI: And is the level of risk
6	determined by an algorithm or a spreadsheet, a
7	matrix, a checklist, or is that a risk that's
8	determined by the inspectors?
9	MR. HAYNES: That would be
10	determined the risk would be determined by
11	the principal inspectors.
12	DR. RODI: Do you do any training at
13	Air Methods?
14	MR. HAYNES: Do I? No.
15	DR. RODI: Are you aware of any
16	violations with the Air Methods' certificate
17	over the last year?
18	MR. HAYNES: There's been several of
19	EIRs that have been filed. There have been some
20	that have been upheld and some that have not.
21	DR. RODI: For the record, can you
22	elaborate what you mean by EIR?

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	1.6
	16
1	MR. HAYNES: It's an enforcement
2	investigative report.
3	DR. RODI: Thank you.
4	How are you involved with the self-
5	disclosure from Air Methods?
6	MR. HAYNES: Well, the self-
7	disclosure is there's they have several
8	programs. And like the VDRP program that's
9	filed, the PIs look at it. And there's an we
10	have an operations and a principal or a
11	their worthiness inspector who are in charge in
12	those programs. And then they work they work
13	with their methods to resole the whatever the
14	problem was to a conclusion.
15	DR. RODI: Do you feel that there
16	are any concerns with regards to that self-
17	disclosure? Do they disclose only the
18	requirements or do they disclose more?
19	MR. HAYNES: They disclose under the
20	program what can be disclosed to my knowledge.
21	There are some things that that are not in
22	that particular those particular programs.

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17 DR. RODI: So changing direction a 1 little bit here, how were you informed about the 2 3 accident in Frisco? MR. HAYNES: I was informed from my 4 principal operations inspector. 5 DR. RODI: And when did you receive 6 7 that notification? Shortly after he did. MR. HAYNES: 8 9 And he received it I -- I believe from the Director of Operations. 10 11 DR. RODI: Did you know the accident 12 pilot? No, I did not. 13 MR. HAYNES: Following the accident, 14 DR. RODI: 15 did you review any documentation, records or information? 16 MR. HAYNES: I reviewed a little 17 documentation and information. 18 19 DR. RODI: Was there anything in 20 there that you reviewed that caused concern? 21 MR. HAYNES: I was -- I was given a 22 service bulletin I believe it was on the

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	18
1	hydraulic system. And the functionality of it
2	raised some questions in my mind.
3	DR. RODI: And did you take any
4	action on that concern, or did you follow up
5	with anybody on your team or at Air Methods?
6	MR. HAYNES: I spoke with the
7	principal operations inspector about it.
8	DR. RODI: Since the accident, have
9	you modified or been involved in the
10	modification of the surveillance of the company?
11	MR. HAYNES: No, ma'am.
12	DR. RODI: Since the accident, have
13	you requested any changes to the company's
14	operational procedures?
15	MR. HAYNES: Have I? No.
16	DR. RODI: What role do you or does
17	your office play in monitoring the incoming
18	safety information related to Air Methods and
19	their fleet?
20	MR. HAYNES: I'm not sure I
21	understand the question.
22	DR. RODI: Information that would

	19
1	come say from a manufacturer in the form of a
2	safety information notice or a service bulletin,
3	something that would be nonmandatory.
4	MR. HAYNES: I don't believe we get
5	those. I think those would go directly to Air
6	Methods.
7	DR. RODI: And what is the FAA's
8	position with, or expectation of Air Methods
9	with regards to the receipt of that information
10	that Air Methods would receive directly from a
11	manufacturer?
12	MR. HAYNES: All I could give you is
13	what my opinion would be.
14	DR. RODI: That's fine.
15	MR. HAYNES: And my opinion would be
16	that they would probably receive them,
17	prioritize the important ones that could be
18	could have a safety hazard or something, and
19	then work the ones that would be the most
20	important ones.
21	DR. RODI: So are you familiar with
22	the safety information notice the in-service

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	20
1	bulletin that came from Airbus Helicopters
2	regarding the dual hydraulics concerns for the
3	AS-350?
4	MR. HAYNES: I have read it.
5	DR. RODI: And have you taken any
6	action or suggested any action of your team
7	based on the safety information notice or the
8	service bulletin?
9	MR. HAYNES: No, not from me.
10	DR. RODI: Okay.
11	Were you aware of the Temple, Texas
12	incident operated by Air Methods that involved
13	the hydraulic isolation switch?
14	MR. HAYNES: No.
15	DR. RODI: So following the Frisco,
16	Colorado accident, several employees at Air
17	Methods left or were let go including the Vice
18	President of Safety and then the Senior Director
19	of Safety. Were you aware of this departure?
20	MR. HAYNES: Yes.
21	DR. RODI: And did it cause concern
22	for you?

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	21
1	MR. HAYNES: For me personally?
2	DR. RODI: As the manager for the
3	MR. HAYNES: The my team and
4	and myself had a meeting. We spoke about it.
5	And I believe there was a a risk assessment
6	done.
7	DR. RODI: So the FAA conducted a
8	risk assessment or Air Methods conducted a risk
9	assessment?
10	MR. HAYNES: I I think it was Air
11	Methods but I believe the principal inspectors
12	were were involved in it.
13	DR. RODI: Okay. Understood.
14	And were you given a reason for the
15	departure of these two safety individuals?
16	MR. HAYNES: I just heard it as a
17	matter of fact. I have nothing official from
18	anybody with that.
19	DR. RODI: Understand.
20	And do you mind telling me what it
21	was that you understood or told regarding their
22	departure?

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	22
1	MR. HAYNES: I was informed that
2	they had resigned.
3	DR. RODI: Okay.
4	Were you involved in the round table
5	meeting that was held between the FAA and Air
6	Methods specifically regarding the departure of
7	these two individuals? I think some have
8	referred to it as the gap meeting.
9	MR. HAYNES: No, I wasn't.
10	DR. RODI: Are you aware of the
11	results of that meeting?
12	MR. HAYNES: No, ma'am.
13	DR. RODI: Okay.
14	Have you met with anybody from Air
15	Methods following the accident?
16	MR. HAYNES: No, I have not.
17	DR. RODI: Okay.
18	All right. I'm going to open up the
19	questions now to my colleagues.
20	Katherine, do you have any
21	questions?
22	NTSB INVESTIGATOR WILSON: I do.

	23
1	Thanks, Jennifer.
2	Do you ever visit any of the Air
3	Methods' bases?
4	MR. HAYNES: No, I have well, I
5	visited the one in Centennial where their
6	headquarters are at.
7	NTSB INVESTIGATOR WILSON: But
8	you've never visited the Frisco Base?
9	MR. HAYNES: Personally, no.
10	NTSB INVESTIGATOR WILSON: Have you
11	heard any concerns about the Frisco Base?
12	MR. HAYNES: No, I have not.
13	NTSB INVESTIGATOR WILSON: How would
14	you rate your workload as a manager?
15	MR. HAYNES: It's kind of heavy.
16	NTSB INVESTIGATOR WILSON: Has the
17	workload increased since the Air Methods'
18	accident?
19	MR. HAYNES: No.
20	NTSB INVESTIGATOR WILSON: How would
21	you rate the workload of the POIs?
22	MR. HAYNES: Well, the the the

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	24
1	POI, everybody on Air Methods, the workload
2	becomes heavy at times.
3	NTSB INVESTIGATOR WILSON: Any
4	concerns about them being able to do their job
5	adequately?
6	MR. HAYNES: Could you explain your
7	question?
8	NTSB INVESTIGATOR WILSON: Well, is
9	there any concern that they don't have enough
10	time in their day to do their inspections
11	adequately?
12	MR. HAYNES: I personally believe
13	that the the Air Methods certificate team
14	when they're doing an inspection do it to the
15	best of their ability and they do it very
16	adequately.
17	If you're concerned about their
18	their overabundance of work, I do have concerns
19	about that at times.
20	NTSB INVESTIGATOR WILSON: Do you
21	feel that safety is jeopardized by them not
22	having enough time?

	25
1	MR. HAYNES: No. I don't think that
2	they would jeopardize safety.
3	NTSB INVESTIGATOR WILSON: I don't
4	mean to belabor the issue, and I don't want to
5	ask whether you think that they would jeopardize
6	safety, but in general, do you think safety is
7	jeopardized by them not having more time to do
8	inspections?
9	MR. HAYNES: No, I don't think that
10	that safety is is jeopardized. I think
11	they they do a very adequate amount of
12	surveillance.
13	Would we like to do more
14	surveillance? Yes, we would.
15	NTSB INVESTIGATOR WILSON: Do the
16	POIs visit the bases or the inspectors visit
17	the various bases?
18	MR. HAYNES: The inspectors visit
19	various bases, yes.
20	NTSB INVESTIGATOR WILSON: Do you
21	know about how many bases they visit per year?
22	MR. HAYNES: Off hand, no, I don't.

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	26
1	I know they have over 300 bases. And it'd be
2	physically impossible to do all 300 of them in
3	one year.
4	NTSB INVESTIGATOR WILSON: What
5	percentage of their time do they spend at the
6	various bases or the bases the Air Methods
7	headquarters and then in the office? Can you
8	break down what a typical quarter or year would
9	look like?
10	MR. HAYNES: As far as percentage of
11	time, the operations inspectors, they do a lot
12	of check rides in the aircraft. The aircraft
13	are based at various bases throughout the United
14	States. So they are visiting different bases
15	every time they pretty much leave the office to
16	go do a job function.
17	NTSB INVESTIGATOR WILSON: Would you
18	say that's 50 percent of their time?
19	MR. HAYNES: Oh, at least 50 to 60
20	percent.
21	NTSB INVESTIGATOR WILSON: Okay.
22	How often do you interact with Air

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	27
1	Methods?
2	MR. HAYNES: Not really not real
3	often. I interact with them when they have
4	concerns or questions and they'll call and
5	and ask me. Dennis and I have interacted
6	several times over several different things.
7	NTSB INVESTIGATOR WILSON: The EIRS
8	that you mentioned, were any of those safety
9	violations?
10	MR. HAYNES: In the last year, I
11	would have to go back and look to make sure.
12	NTSB INVESTIGATOR WILSON: Okay.
13	Do you receive the reports that Air
14	Methods receives from the LOSA collaborative?
15	MR. HAYNES: I personally do not.
16	NTSB INVESTIGATOR WILSON: Okay.
17	Are Air Methods' checklists accepted
18	or approved?
19	MR. HAYNES: They're accepted.
20	NTSB INVESTIGATOR WILSON: And their
21	training?
22	MR. HAYNES: Their training is an

28 approved training program. 1 2 NTSB INVESTIGATOR WILSON: Okay. 3 You said that you had read the safety information notice related to the dual 4 hydraulics. Was that before or after the 5 accident? б 7 MR. HAYNES: That was after the accident. 8 9 NTSB INVESTIGATOR WILSON: Were you aware of it before the accident? 10 11 MR. HAYNES: No, I was not. 12 NTSB INVESTIGATOR WILSON: Were there any safety issues brought up by the POIs 13 during this last inspection of Air Methods? 14 15 MR. HAYNES: I -- I -- can you refer -- I don't understand what you're referring to 16 as the last inspection. 17 NTSB INVESTIGATOR WILSON: Oh, I'm 18 19 sorry. I read my question wrong. 20 In the last year that your POI has done inspections of Air Methods, have there been 21 22 any safety concerns?

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1	MR. HAYNES: There's been concerns.
2	But the majority of those concerns I know when
3	the when the POI does have a concern, he will
4	speak with either Dennis or who is the
5	Director of Operations or Raj who is the Chief
6	Pilot. A lot of times it can be as simple as a
7	misunderstanding or something of that nature
8	that meeting with them they can they can show
9	where there really isn't a safety concern
10	sometimes and other times maybe not.
11	NTSB INVESTIGATOR WILSON: Is there
12	a formal documentation for that?
13	MR. HAYNES: Well, all inspections
14	that the inspectors do are documented both with
15	the PTRS system and the the SAS system.
16	NTSB INVESTIGATOR WILSON: So a
17	safety concern that couldn't be resolved maybe
18	by a meeting to clarify a misunderstanding would
19	be documented in that?
20	MR. HAYNES: Right. Any safety
21	concern would be documented.
22	NTSB INVESTIGATOR WILSON: I think

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30 that's all the questions that I have. 1 2 Thanks, Jennifer. 3 DR. RODI: Thank you. \*(11:38:12), are you still on or did 4 you have to drop off? 5 (No audible response.) 6 7 DR. RODI: I think he dropped off. Matt? 8 9 FAA INVESTIGATOR RIGSBY: You say you have not visited the Frisco Base. 10 But are 11 you aware of other POIs that have visited the 12 Frisco Base? MR. HAYNES: 13 Yes. 14 FAA INVESTIGATOR RIGSBY: Okay. And 15 no reports of any issues with that base, 16 correct? MR. HAYNES: 17 No. 18 FAA INVESTIGATOR RIGSBY: You manage 19 the inspectors on the Air Methods certificate 20 from the operations standpoint. 21 MR. HAYNES: Yes. 22 FAA INVESTIGATOR RIGSBY: Do you

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1	manage any of the maintenance inspectors?
2	MR. HAYNES: Not at the present
3	time, no.
4	FAA INVESTIGATOR RIGSBY: No.
5	With managing the inspectors, are
6	all of their duties specifically for Air
7	Methods? Or are there additional collateral
8	duties that they are assigned by yourself or
9	above you that they are required to perform?
10	MR. HAYNES: Yes.
11	FAA INVESTIGATOR RIGSBY: What are
12	those duties?
13	MR. HAYNES: The the inspectors
14	themselves are required to they do accident
15	duty, they will do pilot deviations, they do
16	walk-in duty, they they're assigned various
17	other duties that that the general aviation
18	units possibly can't handle. We do all the
19	helicopter check rides for this office. They're
20	also required to do FSRP requests which are
21	check rides for other other offices
22	throughout the United States.

	32
1	FAA INVESTIGATOR RIGSBY: About how
2	much of their time gets taken away from managing
3	Air Methods to do those type of requests?
4	MR. HAYNES: Quite a bit of their
5	time. For example, this week, I have three
6	people that are out giving check rides across
7	the United States for for other offices or a
8	total manpower loss just this week of 120 hours.
9	FAA INVESTIGATOR RIGSBY: As a
10	manager, can you reject those requests and say -
11	_
12	MR. HAYNES: No, sir.
13	FAA INVESTIGATOR RIGSBY: Have you
14	ever been instructed to remove an inspector from
15	the Air Methods' certificate?
16	MR. HAYNES: No, I have not.
17	FAA INVESTIGATOR RIGSBY: Have you
18	ever been asked to remove an inspector, either
19	from Air Methods or management, to remove an
20	inspector for personality issues or anything
21	like that?
22	MR. HAYNES: With Air Methods? No.

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	33
1	FAA INVESTIGATOR RIGSBY: Okay.
2	That safety notice on the dual
3	hydraulics, is that a mandatory bulletin or a
4	nonmandatory bulletin?
5	MR. HAYNES: I I believe it's
б	nonmandatory.
7	FAA INVESTIGATOR RIGSBY: Okay.
8	We understand that when an inspector
9	puts in a training request, he initially puts
10	that request into you
11	MR. HAYNES: Right.
12	FAA INVESTIGATOR RIGSBY: for
13	currency and for qualifications.
14	Are all your inspectors current and
15	qualified on all models of Air Methods?
16	MR. HAYNES: No, they're not.
17	FAA INVESTIGATOR RIGSBY: Okay.
18	What's the limiting factor on that?
19	MR. HAYNES: Well, when I put a
20	request in the first year I was with Air
21	Methods, I I put the request in for a few
22	people to go to some classes and they were

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1	they were denied. Last year, I was not allowed
2	to put a request in for a factory school. I'm -
3	- this year, I'm going to again put them in for
4	a factory school. I've been told they probably
5	won't get them.
6	FAA INVESTIGATOR RIGSBY: Have they
7	given you any other reasoning other than just
8	no?
9	MR. HAYNES: Not really, no.
10	FAA INVESTIGATOR RIGSBY: And is
11	that answer coming from who does that answer
12	come from the rejection?
13	MR. HAYNES: It usually comes from
14	Herman Ross at the Region.
15	FAA INVESTIGATOR RIGSBY: Are you
16	aware if Air Methods offered their training
17	classes to principal inspectors?
18	MR. HAYNES: They when they do
19	training, we observe training. As far as being
20	offered to put on a class for our instruct or
21	our inspectors, I was not aware of that until
22	just the other day.

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	35
1	FAA INVESTIGATOR RIGSBY: Do
2	inspectors go to the indoc training that Air
3	Methods gives to its pilots? Is the FAA a
4	regular part of that indoctrination class?
5	MR. HAYNES: We're not a part of it
6	as far as putting it on. On a regular basis as
7	far as approving their training program and
8	monitoring their training program, we do have
9	people that go to it. Yes.
10	FAA INVESTIGATOR RIGSBY: Okay.
11	Compared to other certificates that
12	you've been involved with managing, would you
13	say Air Methods is a complex certificate?
14	MR. HAYNES: It's a very complex
15	certificate.
16	FAA INVESTIGATOR RIGSBY: Okay.
17	How would you rank Air Methods as
18	far as size of air carriers?
19	MR. HAYNES: About the fifth largest
20	in the nation.
21	FAA INVESTIGATOR RIGSBY: When any
22	operator has an accident, does it change the

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1	risk analysis that is performed on that company
2	as far as for surveillance?
3	MR. HAYNES: It can depending upon
4	the accident itself. It just doesn't
5	automatically trigger a heightened surveillance,
6	but it can.
7	FAA INVESTIGATOR RIGSBY: Okay.
8	When an inspector receives a
9	checklist in from Air Methods for acceptance, do
10	you typically try to assign that to an inspector
11	that is current and qualified in that aircraft?
12	Or can any inspector do it?
13	MR. HAYNES: Well, pretty much any
14	inspector can, but we don't have anybody that's
15	current and qualified in the aircraft.
16	FAA INVESTIGATOR RIGSBY: Okay.
17	Do you know if you have anybody
18	current and qualified in the AS-350 B3E, the new
19	
20	MR. HAYNES: No, we don't.
21	FAA INVESTIGATOR RIGSBY: You do
22	not.

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37 And the limiting factor on that has 1 been training? 2 3 MR. HAYNES: Training. FAA INVESTIGATOR RIGSBY: 4 Do you see that as a safety issue? 5 MR. HAYNES: Yes. 6 7 FAA INVESTIGATOR RIGSBY: I'm done. DR. RODI: Thank you. 8 9 Dennis? MR. McCALL: I do not have any 10 11 questions. Thank you. 12 DR. RODI: Thank you. Ed? 13 MR. BUTTNER: Ed's still gone. 14 He 15 had to catch a flight. 16 DR. RODI: Okay. MR. BUTTNER: This is Seth. I don't 17 have any questions. 18 19 DR. RODI: Thank you, Seth. 20 How about Bryan? MR. LARIMORE: No, I don't have any 21 22 questions.

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1	DR. RODI: Anything else?
2	Anybody have any additional
3	questions that have come up?
4	(No audible response.)
5	DR. RODI: Great.
6	Just to elaborate on the questions
7	that Matt was asking you, do you feel that
8	there's training that your inspectors need to do
9	their job that they are not currently receiving?
10	MR. HAYNES: Yes, I do.
11	DR. RODI: And what would that
12	training be?
13	MR. HAYNES: Training in the air
14	specific aircraft they're giving the check rides
15	in.
16	DR. RODI: I understand.
17	And you do not have an explanation
18	as to why that training has not been authorized
19	or allowed?
20	MR. HAYNES: No, I don't. The
21	training they do do these aircraft that Air
22	Methods has are they're heavy aircraft.

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They're technically-advanced aircraft in their 1 systems. They have engine (iinaudible) systems. 2 3 They're multi-engine aircraft. They have flight Some of them contain four management systems. 4 The -- the training that my 5 axis autopilots. people do get presently is in a BEL 206 or a --6 7 a Hughes 300 which are very light aircraft. They don't have any of these systems. They're 8 9 single-engine aircraft. We should be training in the aircraft that they're checking these 10 11 pilots in. 12 DR. RODI: Understand. Do you think that there's anything else that we should be 13 aware of that you would like to discuss that we 14 15 did not ask you about? 16 MR. HAYNES: No. DR. RODI: 17 Okav. Very good. We appreciate your time. 18 Thank you 19 very much. 20 (Whereupon, at 11:48 a.m, the interview was concluded.) 21 22

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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Stanley Haynes

DATE: 10-27-15

I hereby certify that the attached transcription of page 1 to 40 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

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## NATIONAL TRANSPORTATION SAFETY BOARD

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\* \*

INVESTIGATIVE INTERVIEW

RE FRISCO, COLORADO ACCIDENT THAT OCCURRED ON \* JULY 3, 2015

\* Docket No.: \* CEN15MA290-91489

INTERVIEW OF: GLENN UCHIYAMA

Friday, November 19, 2015

8:00 a.m.

Air Methods 7211 South Peoria Street Englewood, Colorado 80112

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From the NTSB:

KATHERINE A. WILSON, Ph.D. JENNIFER S. RODI, Ph.D.

**NEAL R. GROSS** 

Representing Air Methods:

COREY J. WRIGHT, ESQ. DENNIS McCALL

	3
1	PROCEEDINGS
2	DR. RODI: So as we conduct this today,
3	if you could speak up very clearly. If we're asking
4	you a question, don't nod your head yes or no. Say
5	yes or no verbally because he's here to capture that
6	for the transcript. If you need something
7	clarified, you don't understand a question, we're
8	more than happy to restate it or clarify the
9	question for you as we move forward.
10	We're here for the investigation of the
11	Frisco, Colorado accident. The purpose of our
12	interview and discussion with you today is the
13	furtherance of that accident investigation. We are
14	in no way during this interview or in any part of
15	our investigation interested in fault or blame or
16	liability with regards to the accident. We can't
17	guarantee confidentiality or immunity in anything
18	that's discussed today. The transcript of this
19	interview will be available in the public docket at
20	the completion of our investigation, so that is
21	available to the public. And you're entitled during
22	this interview to representation. So who do you
23	choose?
24	THE INTERVIEWEE: Corey.
25	DR. RODI: Excellent. And as a reminder,
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	4
1	you can't answer questions for him.
2	MR. WRIGHT: Understood.
3	BY DR. RODI:
4	Q Any questions?
5	A No.
6	Q Excellent. So you've met me and
7	Katherine. You know Mr. McCall?
8	A Um-hum.
9	Q Do you have any questions for us? Do you
10	understand the process or course of an NTSB
11	investigation, its purpose?
12	A I understand, and I have no questions.
13	Q Excellent. We don't have any further
14	group members today. Mr. McCall is a party member
15	to our investigation, and that's why he is in here
16	today as part of the interview and has absolutely
17	nothing to do with company business, so he's here as
18	a party to the investigation, assisting the
19	investigation, ensuring that it's as thorough and
20	complete as possible. So that's his role today.
21	A Okay.
22	Q Any questions?
23	A No.
24	Q So Dr. Wilson will lead the interview
25	today. When she's finished, if I have any follow-up
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	5
1	questions, I will ask you. If Mr. McCall has any
2	follow-up questions, he will ask you, and that
3	should be the completion of it.
4	A Okay. BY DR. WILSON:
5	Q Do you mind if I call you Glenn?
6	A Sure.
7	Q On behalf of the NTSB, let me extend our
8	condolences for the loss of one of your colleagues.
9	A Thank you.
10	Q So if you need to take a break or
11	anything; and again, as Jennifer said, any
12	clarifications you need, just let me know.
13	A Sure.
14	Q For the record, can you state your full
15	name.
16	A Glenn Uchiyama. Do you want my middle
17	name too?
18	Q Yes.
19	A Okay. Shigeo. I'll spell that for you.
20	It's S-H-I-G-E-O. I'll spell my last name for you
21	too. It's U-C-H-I-Y-A-M-A. And it's Glenn with two
22	Ns.
23	Q And what is your position at Air Methods?
24	A I'm a check airman or aviation compliance
25	examiner.
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	6
1	Q And what are your duties and
2	responsibilities in that position?
3	A Training and checking both in the AStar
4	and the EC145.
5	Q And if you could give a brief description
6	of your aviation background.
7	A I started flying in 1969 in airplanes,
8	and in the '70s into helicopters, and I've been in
9	26 years, five months in the military. After
10	retiring from the military, I started with, at that
11	time, Rocky Mountain Helicopters. And then the
12	acquisition with Rocky to Air Methods, I've been
13	with the company for January would be 18 years
14	with the company.
15	Q And your total time, fixed wing and
16	rotocraft?
17	A Just rotocraft?
18	Q No, fixed wing and rotor.
19	A Maybe about 9500 hours. Between 95 and
20	10.
21	Q And about what amount of that is
22	rotocraft?
23	A Probably about 9,000 hours in those.
24	Q Okay. Where are you based with the
25	company?
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		7
1	A I	'm home based.
2	Q 0.	kay.
3	A I	'm a home-based check airman.
4	Q A:	nd what does that mean?
5	A T	hat means my office is my house.
6	Q A:	nd then when you perform check rides?
7	A T	hen I go out on the road.
8	Q D	o you do check rides at all bases, or a
9	region?	
10	A I	t's kind of on an as-needed basis as to
11	where I'm nee	eded to go to.
12	Q A:	nd who do you report to?
13	A W	illiam Harper. He's my current
14	assistant ch	ief pilot.
15	Q W	hat other positions have you held with
16	Air Methods?	
17	A P	ilot, line pilot for about six years,
18	and then in t	the training department ever since.
19	Q A:	nd are you qualified on the AS350?
20	A Y	es, I am.
21	Q A	oout how much time do you have in that?
22	A O	h, probably about for all the years,
23	maybe about :	3000 hours.
24	Q W	here did you receive your training for
25	the AS350?	
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1	A Rocky Mountain Helicopters in Provo,
2	Utah.
3	Q Okay. What certificates or type ratings
4	do you hold?
5	A I hold an ETP, rotocraft.
6	Q What training are you authorized to do
7	with Air Methods?
8	A Initial, or initial new hire, new
9	equipment training, transition training, differences
10	training, recurrent training. Basically all the
11	training categories.
12	Q Is that limited to a particular aircraft
13	type, or across for all aircraft?
14	A Oh, just two types. The EC145 or the
15	BK117 C2 and the AStar.
16	Q Okay. And you said that you are a check
17	airman?
18	A Correct.
19	Q And on both of those aircraft?
20	A Correct.
21	Q About how many checks would you say 2
22	A It depends on the number of bases I go
23	to. Overall, probably somewhere around 20 to 30 air
24	checks. And that's counting both airframes, both
25	aircraft.
I	

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	9
1	Q How often do you conduct the ground
2	school training?
3	A When I'm assigned to teach new hire
4	training, then I would do the ground training.
5	Q About how often does that occur?
6	A For both airframes, the 145 and the
7	AStar, maybe probably about five or six a year.
8	Q Okay. And do you travel to Denver for
9	that, or do you go to specific bases? Where do you
10	perform that training?
11	A For the AStar, since the AStar is
12	centralized training now, it's done here in Denver.
13	For the EC145, since it's not centralized training,
14	we do it at the bases.
15	Q What training do pilots receive for the
16	AS350? You said initial. And is there recurrent
17	training also?
18	A The requirement is initial. Initial new
19	hire and new equipment. If they were previously
20	qualified in a different aircraft, then it will be a
21	transition training. But their annual requirement
22	is recurrent training.
23	Q And so it's a 12-month cycle?
24	A Correct.
25	Q About how many hours is the recurrent
I	

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	10
1	training?
2	A PTP for a BFR aircraft, recurrent
3	training is what is in the inspector's handbook. The
4	same thing that we have in our PTP is two hours, and
5	then a check run.
6	Q How do trainees provide or how do
7	pilots provide feedback about training procedures?
8	A You said feedback from them to the
9	training department or to the instructor?
10	Q Yes.
11	A Unless they're asked, that would be the
12	only way, if the instructor asks for feedback.
13	Q What documentation are you required to
14	keep for trainees?
15	A Can you state that again?
16	Q What documentation are you required to
17	keep?
18	A For the ground training, we have a ground
19	training form, helicopter ground training, and for
20	the flight training, we have a helicopter flight
21	training form.
22	Q Are there any areas in training for the
23	350 that pilots have problems with, any
24	difficulties?
25	A Not that I know of.
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11 1 Q What role, if any, does the training department have in accident investigation? 2 Unless there's anything specifically 3 Α 4 related to training and procedures, none. Let's talk about the differences 5 0 Okav. training. 6 7 Α Sure. How are pilots trained? What topics are 8 Q covered related to the differences between single 9 and dual hydraulics? 10 The AS350 annex is Annex 1. 11 Α There's a table towards the end of the PTP or the annex, Table 12 1-1, and in there it covers the AStar variants that 13 the pilot is currently flying. And if he's going to 14 fly a different variant, they're required ground 15 training and flight training. So it's based on that 16 chart. 17 0 Is there training provided specific to 18 performing the hydraulic checks during the 19 preflight? 20 It's covered in ground, the schematic, 21 Α and the difference between the single hydraulic and 22 the dual hydraulic system. And then all we require 23 is the -- not a flight portion, per se. There is no 24 requirement to do a flight. The requirement is to 25

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	12
1	do a ground run because that's really where the
2	check into hydraulics during the run-up procedure.
3	And that's for the dual hydraulic aircraft that's
4	the way it is.
5	Q And that's a part of the differences
6	training?
7	A That's part of the differences training.
8	Q Okay. Is the hydraulic checks emphasized
9	in any way, or is that covered at the same level as
10	all of the other preflight checks that are done?
11	A It's covered pretty much the same as the
12	normal checks.
13	Q Have you ever noticed a pilot forgetting
14	to turn the hydraulic switch back on during the
15	preflight checks?
16	A No.
17	Q Prior to the accident, were you aware of
18	the safety information bulletin from Airbus
19	regarding the need for the hydraulic assist switch
20	on the collective to be on during takeoff? I can
21	show it to you. Is isn't a you don't need to
22	wrack your brain.
23	A Well, it's good that you're going to show
24	it to me because there's a lot of safety information
25	notices that have come from Airbus prior to and
	I

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		13
1	post. Oh, ye	es, I'm familiar with this one.
2	Q We	ere you familiar before the accident?
3	A 0:	the safety bulletin?
4	Q Ye	ès.
5	A No	).
6	Q Ho	ow are you normally informed about these
7	bulletins whe	en they do come out?
8	A B	/ e-mail.
9	Q 01	ay. So just to specify, this then was
10	not included	in differences training that you're
11	aware of pric	or to the accident?
12	A No	).
13	Q 01	ay. Has there been a discussion since
14	the accident	to emphasize this during training?
15	A Ye	es.
16	Q A:	ter the accident, how were you made
17	aware of the	safety information bulletin?
18	A Sa	ame, through e-mails.
19	Q 01	ay. Are you aware of this emergency
20	airworthines	directive that came out regarding
21	moving that h	ydraulic check to the post flight
22	A Ye	es. This is the more recent AD that
23	just came out	, yes.
24	Q Ha	as Air Methods implemented this?
25	A Ye	es.
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	14
1	Q Is there a procedure that you're aware of
2	during the preflight, then, for the pilot to check
3	to ensure that the switch is on prior to takeoff?
4	A No.
5	Q Okay. How were you trained to teach
6	differences training?
7	A So the question would be how did I get my
8	differences training?
9	Q Right.
10	A I went down to Airbus for my differences
11	training.
12	Q Okay. How does the training that Air
13	Methods provides differ from the training that
14	Airbus provided?
15	A Very similar. We try to use the same
16	material that they are using.
17	Q Are you aware of any differences between
18	the Air Methods checklist and the 350 flight manual?
19	A Can I ask him a question?
20	Q You can confer with him.
21	MR. WRIGHT: Give us two seconds.
22	DR. WILSON: Sure. Take a break.
23	(Recess from 8:22 a.m. to 8:24 a.m.)
24	A Ask your question again.
25	Q (By Dr. Wilson) Back on the record. Are
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	15
1	you aware of any differences between Air Methods'
2	checklist and what is in the 350 flight manual?
3	A No, there's no difference between them.
4	Q Okay. How would a pilot know whether
5	he's flying a dual or a single hydraulic helicopter?
6	A Other than the checklist will tell
7	him. Once he gets in the aircraft, the normal
8	checklist states at the top whether it's a well,
9	in this case, the B3e were focused around that
10	aircraft. The B3e and we had a single B3e. The
11	single B3e has a dual hydraulic system on there, and
12	the checklist when he follows the normal
13	checklist, it's a step-by-step process on checking
14	that hydraulic system there.
15	Q Is the preflight checks, the hydraulic
16	checks specifically, is that done from memory, or is
17	that done with the checklist?
18	A There's an expanded checklist that we
19	wrote, which is similar to the expanded that's in
20	the flight manual.
21	Q Are pilots required to use that, or can
22	they perform those checks from memory?
23	A They should use the expanded.
24	Q Did you know Mr. Mahaney?
25	A Yes.
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	16
1	Q In what capacity?
2	A I flew at the same base he flew at for
3	six years.
4	Q Did you ever provide training to him?
5	A Yes.
6	Q What training?
7	A I've done recurrent training with him
8	once I left the base there into the training
9	department, annual recurrent training not every
10	year and his differences training.
11	Q Okay. Do you recall the differences
12	training with him?
13	A The differences training was actually the
14	B3e differences training. Yeah. And the flight
15	portion was on the B3e, or actually a dual hydraulic
16	aircraft with the auto pilot, we actually do a
17	flight training specifically for the auto pilot.
18	For the dual hydraulic aircraft that does not have
19	an auto pilot, we do basically the run-up and the
20	shut-down, doing the checks for the hydraulic
21	system.
22	Q So did you provide the ground and the
23	flight training for Mr. Mahaney?
24	A Correct.
25	Q How did he do overall in the training?
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17 1 Α I don't recall. 2 Okay. How were his -- do you recall Q anything about his piloting skills, either good or 3 bad? 4 No. 5 Α Was there any portion of the training 6 Q that he needed remediation? 7 Α No. 8 Did you observe him doing the preflight 9 Ο checks for that helicopter? 10 I was in the aircraft with him. 11 Α Yes. Any problems that you noticed? 12 Q Α No. 13 Do you recall if he used the checklist or 14 Q 15 did the checks from memory? Not from memory, because during the 16 Α Yes. 17 training portion we emphasize to the pilots, especially on a new system, is to utilize the 18 checklist so they understand what they're going 19 through in the aircraft. 20 21 What would you say was Mr. Mahaney's 0 greatest strength as a pilot? 22 I don't know. 23 Α Were there any areas that you can 24 0 Okav. think of that he could improve upon? 25

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	18
1	A I only see pilots for a short period of
2	time, and you see a whole bunch of pilots, so it's
3	hard to remember any of that. And when I had a I
4	don't want to say a close relationship, but working
5	with four pilots at the base, I was there only for
6	six years. After I left, then obviously I lose
7	contact with everybody.
8	Q It's okay to not remember.
9	A Yes.
10	Q Can you compare his performance to other
11	pilots that you've trained?
12	A No, because I compare them just to the
13	standards.
14	Q Okay. And did he meet the standards?
15	A Yes.
16	Q The flight portion of the differences
17	training, was that considered a check ride?
18	A No.
19	Q Have you ever given him a check ride?
20	A Probably did.
21	Q Do you recall whether he passed that
22	check ride or not?
23	A I don't remember.
24	Q Okay. Are pilots trained to lift off to
25	a hover?
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	19
1	A Yes.
2	Q Okay. Is that written in a procedure, or
3	is that a technique that they can use?
4	A You need to clarify that question because
5	when you say pilots are trained to lift off to a
6	hover, that's how you get the aircraft in flight, is
7	to lift it off to a hover. So what's the question?
8	Q Is that written specifically in any of
9	the procedures?
10	A Yes. It's written in there. Increase
11	the collective would bring the aircraft to a hover.
12	Q Is there a certain amount of time that
13	they should maintain the hover?
14	A No.
15	Q Regarding the safety information bulletin
16	that you were made aware of, and now this emergency
17	AD, has differences training changed?
18	A No. Well, just more emphasis on the
19	checks. And with that AD, obviously, the checks are
20	not done during normal run-up. There's only one
21	check, and it's totally different, that's done at
22	the end. So that for the pilots, that's how
23	they're trained now.
24	Q So differences training is a one-time
25	event?
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	20
1	A Correct.
2	Q And recurrent, they come once a year. So
3	are pilots then made aware of this change for those
4	that don't come to the recurrent training until a
5	later time?
6	A All that information, ever since the AD
7	and the SBs that has come out recently, within the
8	last few months, anyway, all of that information is
9	put onto our Pilot 411 System, the portal. So
10	that's how that information is sent out to the
11	field.
12	Q Okay. But these changes, when they come
13	back for retraining, will be included?
14	A They're also emphasized, yes.
15	Q How do you keep current?
16	A I have the same requirements as the
17	pilots. I have annual recurrent training with
18	another instructor, and my check ride is usually
19	done with the FAA.
20	Q Have there been any other changes to
21	training or procedures that are related to the
22	accident?
23	A Other than just trying to accommodate the
24	SBs and the ADs that have come out recently.
25	DR. WILSON: Glenn, thank you. Those are
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	21
1	all the questions that I have. Jennifer? BY DR.
2	RODI:
3	Q When you do recurrent training,
4	specifically with Mr. Mahaney, are there certain
5	required maneuvers that you like to see performed
6	during that flight?
7	A The recurrent training mentioned earlier,
8	it's an hour requirement, but there's also a task
9	requirement. There's certain tasks that have to be
10	trained and evaluated on. And obviously, an
11	instructor or check airman can put additional tasks
12	on the pilot if need be. So what was the question
13	again?
14	Q What would be the required tasks or
15	maneuvers for the flight portion of that?
16	A It's right in our pilot training program,
17	what task needs to be accomplished.
18	Q Okay. And specific to emergency
19	procedures, do you recall what emergency procedures
20	would be re-covered as a required task during that
21	training?
22	A The hover and auto rotation, because it's
23	as far as the AStar is concerned, there are the
24	variant that you're flying as to what you can do and
25	what you cannot do. The hover and auto rotation,
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22 1 the auto rotation to a prior recovery, and for those that fly the single hydraulic aircraft, we do the 2 3 hydraulic maneuver, the emergency maneuver for the 4 hydraulics. Excellent. During the recurrent 5 0 training, the differences training, is there any 6 7 discussion about the stuck pedal emergency or what a pilot should do should they perceive a stuck pedal 8 situation? 9 We discuss anti-torque malfunctions. Α 10 11 Ο So changing directions a little bit, which base did you fly with Patrick at? 12 Denver base. Α 13 14 Q Have you flown out of Frisco at all? During the summertime, I will rotate up 15 Α to Frisco. 16 And during your time flying with Patrick 17 0 out of Denver or pilots out of Denver, out of 18 Frisco, are you aware of a corkscrew departure 19 procedure for the Frisco base? 20 21 Α No. If somebody asked you what a corkscrew 22 0 departure was, would you know what that is? 23 Α Now, just for clarification, when I 24 No. worked there at Frisco, although it was the Frisco 25

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	23
1	base, it was at a different location. They were in
2	the Town of Frisco. Now they're at the hospital.
3	Q Understood. Thank you for that
4	clarification, I appreciate that. One more quick
5	change in direction. Who did you do your FAA check
6	ride with most recently; do you recall?
7	A Yeah. The safety inspector was Larry
8	Ciancio. I can't remember how you spell his last
9	name.
10	Q What airframe or helicopter did you use
11	for that?
12	A The AStar.
13	Q Do you recall if it was one with single
14	or dual hydraulics?
15	A Single.
16	Q Okay. When it comes to working with the
17	FAA, how would you characterize your interaction or
18	your relationship with the FAA?
19	A I would say good.
20	Q And how would you characterize or
21	classify the FAA's familiarity with the different
22	airframes Air Methods operates?
23	A That I don't know.
24	DR. RODI: Dennis? BY MR. McCALL:
25	Q Glenn, when we're teaching pilots how to
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	24
1	use checklists for initial training, what do we tell
2	them? Is it a do verify? Is it a challenge
3	response?
4	A For initial new hire training, it's a
5	well, not a do verify. Well, I'll say a do verify.
6	In other words, look at Item 1, do Item 1. So use
7	it as that type of a checklist until they get a
8	little bit more experienced. Then it becomes just a
9	do verify, you know. Do the checks, X amount of
10	checks, and then verify that you have accomplished
11	those checks.
12	Q I'm going to try to restate that a little
13	bit.
14	A Sure.
15	Q So you're saying that as they get
16	familiarity, as time goes on, the more they do
17	those, they'll be able to do more of those items
18	before they have to get to the verified part?
19	A Right.
20	Q When you're giving a check ride to a Pat
21	Mahaney and you're monitoring the checklist usage,
22	what are you looking for besides that checklist,
23	that it's just out and able to see it?
24	A Making sure that all the steps are
25	covered, because as a habit, I have a checklist that
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1	I go along too, just to make sure that the checks
2	you're doing is the checks that need to be done.
3	Q Can you tell when you fly with somebody,
4	giving a training event or check ride, if they're
5	familiar with a checklist?
6	A Yes, I can.
7	Q How can you tell that?
8	A Because when they get to an item on the
9	checklist, they stumble through the checks, and I
10	know that they're not familiar with the checks.
11	Q You would remember an event like that,
12	wouldn't you?
13	A Oh, sure.
14	Q The other one is a question, something I
15	was always kind of proud of, was that when I was
16	giving a check ride, all I had to do was watch them
17	start the aircraft and pick it up into a hover, and
18	I knew almost everything I needed to know.
19	A Right.
20	Q Would that have stuck out in your mind
21	had somebody done something that got your attention?
22	A Oh, yes.
23	Q And you would note that somewhere?
24	A Yeah, I would note that, because that way
25	for the rest of the flight, I kind of know how it's
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1	going to go based on the preconceived thing that he
2	did, or what the pilot did prior to takeoff.
3	Q Okay. I know it's hard to remember
4	individual check rides because you do so many of
5	them, and training events too. But I was just
6	trying to check what your feeler gauge was on what
7	would make you remember something.
8	MR. McCALL: That's all I have. BY DR.
9	WILSON:
10	Q I've got a couple of follow-ups. Is
11	there any simulator training for the 350?
12	A We had a period of time where we did have
13	access to a flight simulator, and it was the Airbus
14	simulator done at Grand Prairie, Texas.
15	Q But that's no longer used?
16	A No.
17	Q Okay. Regarding the discussion of
18	anti-torque malfunctions, what is specifically
19	discussed?
20	A Anti-torque failures, both loss of tail
21	rotor thrust, in other words, no control over the
22	tail rotor. It's turning back there, or a drive
23	shaft's severed, you have no control of the tail
24	rotor. And then the other is a fixed-pitch
25	condition where the pedals are stuck.
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	27
1	Q Okay. Is it discussed that these things
2	can occur, or do you discuss the procedures of what
3	to do when this occurs?
4	A Both.
5	Q And what would the procedure be should
6	you get one of those?
7	A It depends. If you're at a hover, you're
8	in flight. If you're at a hover is to try to
9	minimize the rotation by lowering the collective and
10	land normally for stuck pedal condition there. If
11	you're in flight, go ahead and accelerate, get it
12	into a they call it a left slip, but it's
13	basically a right yaw, and you're in a slip with a
14	left wing low, get to a certain air speed. The
15	recommendation is 70 knots, then you push the
16	hydraulic test or the accutest because there's two
17	different labels for that switch, allow the yaw
18	compensator to be depressurized. The nose of the
19	aircraft will move slightly to the 12 o'clock
20	position, the direction you need to go, and then do
21	a shallow approach to a run-on type landing.
22	Q And you said that was for the stuck
23	pedal?
24	A Right. They call it a slide valve
25	seizure. That's what's in the manual.
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28 1 Ο And then for some sort of rotation yaw immediately after liftoff, what would be the 2 procedure for that? 3 If the aircraft's yawing, is -- in the Α 4 B3s we have a twist where you can actually do hover 5 So in other words, we'll take the twist 6 in auto. 7 script to idle and go ahead and cushion your landing. 8 If either of those occurred immediately 9 0 after takeoff, the procedure would be to try to 10 11 regain control and land? Α Yeah. If you have access to fly the 12 aircraft, or space to fly the aircraft and the 13 14 aircraft's rotating and it's not rotating rapidly, you can go ahead and accelerate forward to get the 15 aircraft in flight, to give you time to troubleshoot 16 to see what's wrong in the aircraft, and also to get 17 to an area that you can do a landing. 18 And is that specifically discussed 19 Okay. Ο 20 in training? 21 Α We try to cover every scenario that the pilots fly in. You do have some pilots that are 22 23 based at airports, so their emergency procedure might be a little bit different than is based at a 24 hospital, on top of a roof, hospital in the middle 25

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1	of a pinewood forest, so the procedure is the way
2	they handle the procedure is going to be different,
3	because not all emergency procedures are the same.
4	Q Okay. Do you think that that's something
5	that should be taught in a simulator, or is ground
6	school training adequate?
7	A If you had a simulator for that, and the
8	simulator had the capability of doing that, then
9	yes, you could teach it in a simulator.
10	Q When you utilized the Airbus simulator,
11	was that something that was trained?
12	A No.
13	Q Do you know if it was the simulator
14	had that capability?
15	A Oh, for anti-torque training, yes. We
16	did the anti-torque training down there, yeah. But
17	specifically to the environment, that was limited
18	because of the database that they had as far as
19	fidelity. You could only fly out of Dallas or you
20	could fly out of San Bernardino, that was it.
21	Q Are you familiar with scenarios where
22	incidents where there is an anti-torque malfunction?
23	A No.
24	Q If a pilot had that sort of malfunction,
25	what would he do after he has a safe landing? Would
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1	that be a reportable event at Air Methods?
2	A Yes.
3	Q And how would they report that?
4	A Through the AIDMOR.
5	Q And is that the safety department
6	reviews that?
7	A Yes.
8	Q Okay.
9	DR. WILSON: Any follow-ups?
10	MR. McCALL: Yes, based on what you
11	asked. BY MR. McCALL:
12	Q I don't fly the 350 anymore. It had
13	single hydraulics when I was flying it. But I have
14	a question. When I did read through the emergency
15	procedures, there's some notes in the flight manual
16	that say if you're below a certain air speed and
17	you're spinning, that you cannot
18	A Control the aircraft.
19	Q Right, and forward flight will not be
20	able to go enough to give you a slip screen to
21	straighten the aircraft out. So if somebody decided
22	to go that route and tried to fly it away while it
23	was spinning, what would you think would happen to
24	the aircraft? Not crash. I mean what do you think
25	how it would behave?
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1 Α There's going to be some forward momentum 2 or horizontal movement when he tried to fly through Obviously, the amount of rotation 3 it or fly of it. 4 depends on how high he is off the ground. The higher you are, the more collective you have, the 5 faster he's going to spin. And the air speed you're 6 7 talking was about 40 knots. Usually 40 knots is the magic number for an AStar there. But once that 8 aircraft starts moving horizontally, what you have 9 to be concerned with is now your tail is also going 10 11 -- because it's going to be spinning. Initially 12 you're trying to get the nose to move forward, but eventually your tail is going to be the one that's 13 14 traveling in that direction, and that compounds the problem. 15 So to get -- and I have to get 16 Okav. 0 this right. So if you're in a hover --17 Α If you're at a hover, hover is not a 18 rotation. 19 And then if you -- you've got it a little 20 Q 21 bit higher. Now, maybe you're at a rad (sic) 22 effect, and you're 10 feet, you have a higher power setting, you're spinning a little bit faster, what 23 would you tell me to do? 24 Α Lower the collective slightly to reduce 25

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1 that amount of rotation, because that's what controls the rotational speed of the aircraft. 2 Lower it to see if you can apply directional flight. 3 Q Would you think, in a hydraulics failure, 4 that you'd be able to still move the pedal? 5 You're kind of -- well, actually, it's 6 Α 7 the same thing for a single or dual. It's irrelevant. 8 I'm not talking about something that's 9 0 I'm talking about if you had a --10 jammed. 11 Α If you had hydraulics? If you had a 12 hydraulics failure, yes, you could still move the pedals, although it's going to be -- it'll take a 13 14 little bit more effort to move the pedal. And what do you know about that switch 15 0 that's on the collective? If that's in the wrong 16 position, would you still -- after you take off, 17 would you still have cyclic authority and full 18 collective authority? 19 In a single hydraulic aircraft, you 20 Α 21 should have cyclic authority because you have the 22 accumulators at work for at the time, albeit maybe about 30 seconds, and then it's all gone there. 23 The tail rotor, with that switch off, it isolates the 24 yaw compensator, so you should still have pressure 25

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33 1 back there, that so-called 40 bars of pressure, although it just takes a little bit more effort to 2 push those pedals. 3 But you are able to move the 4 right pedal, you are able to move the left pedal. And again, if somebody -- I'm 5 0 Okav. trying to get it through my head. I could still see 6 7 it in the flight manual. It's in red, and it's more of a warning than a note that says you can't fly the 8 aircraft away if you're below -- you said 40 knots? 9 Α 40 knots, yeah. 10 11 MR. McCALL: That's all I have. BY DR. WILSON: 12 Is there anything else that you think we 13 0 14 should have asked you that would be helpful to the investigation? 15 No. 16 Α Do you have any questions for us? 17 Q Α No. 18 All right. Well, you have our contact 19 0 information. So if you think of anything or have 20 any additional questions, please don't hesitate to 21 reach out to myself or Jennifer, and we appreciate 22 you coming all this way from Alaska. 23 No, I was up there doing training. 24 Α Q Well, we still appreciate you taking the 25

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1	time to talk to us. It was very useful.	
2	A I appreciate it.	
3	DR. WILSON: Off the record.	
4	(Whereupon, the interview was concluded	
5	at 8:51 a.m.)	
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Glen Uchiyama

DATE: 11-19-15

I hereby certify that the attached transcription of page 1 to 35 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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NATIONAL TRANSPORTATION SAFETY BOARD \_\_\_\_\_ : Accident No. IN RE FATAL AIRBUS HELICOPTER : CEN15MA290 ACCIDENT THAT OCCURRED : ON JULY 3, 2015 NEAR : FRISCO, COLORADO : : ------INTERVIEW OF EDWARD JAY STOCKHAUSEN Conference Room Metro Aviation 1410 Hawn Street Shreveport, Louisiana Wednesday, April 27, 2016 9:00 a.m. **BEFORE**: JENNIFER S. RODI, Ph.D. Investigator in Charge NTSB Central Region 4760 Oakland Street, Suite 500 Denver, Colorado 80239 303-373-3505 DR. KATHERINE WILSON, via telephone Reporter: Barbara Wall

I	2
1	PROCEEDINGS
2	(9:00 a.m.)
3	DR. RODI: Did you know Patrick Mahany?
4	MR. STOCKHAUSEN: I did.
5	DR. RODI: Excellent. We extend our
6	condolences to you for the loss of a friend and a
7	colleague.
8	MR. STOCKHAUSEN: Thank you.
9	DR. RODI: Could you state your first,
10	middle, and last name for the record.
11	MR. STOCKHAUSEN: Edward Jay, J-A-Y,
12	Stockhausen.
13	DR. RODI: And how long were you employed
14	with Air Methods?
15	MR. STOCKHAUSEN: Ten years.
16	DR. RODI: And how long were you the
17	director of safety?
18	MR. STOCKHAUSEN: That entire time.
19	DR. RODI: And what were your
20	responsibilities as the director of safety?
21	MR. STOCKHAUSEN: You know, the obvious:
22	responsible for, you know, the reporting systems, the
23	data, training analysis, and then later, through the
24	SMS process, managing the development of our SMS
25	integration of some of the voluntary safety programs
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1	that the FAA has, those type things.
2	DR. RODI: And what did you do prior to
3	working at Air Methods?
4	MR. STOCKHAUSEN: Gosh, kind of far back.
5	You know, I've been on the ops side before getting into
6	safety. I've been a check airman; line pilot,
7	obviously; an IFR pilot; a chief pilot; a director of
8	operations, so I've kind of run the gamut.
9	DR. RODI: Did you do any flying while you
10	were at Air Methods?
11	MR. STOCKHAUSEN: I did not.
12	DR. RODI: And can you expound on your
13	certificates and ratings that you hold as a pilot.
14	MR. STOCKHAUSEN: CFI, commercial
15	instrument, helicopter.
16	DR. RODI: And about how many hours of
17	flight time do you have?
18	MR. STOCKHAUSEN: Gosh, over 11,000.
19	DR. RODI: And any experience in the AS 350
20	series?
21	MR. STOCKHAUSEN: No, none.
22	DR. RODI: As the director of safety at Air
23	Methods, did you have access to senior management?
24	MR. STOCKHAUSEN: I did.
25	DR. RODI: And could you describe your
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1	access and the quality of that access.
2	MR. STOCKHAUSEN: Mostly it was in the form
3	of meetings. We had scheduled meetings that were in
4	conjunction with the SMS, so basically we had three
5	levels of meetings. We called them the SIRT, the SART,
6	and the SORT, so the safety information roundtable, and
7	the gosh, I'm trying to think of what SORT stood for
8	now. I can't think of what the acronym stood for now,
9	but anyway, and then the improvement, I'm sorry
10	and then the last one was for senior management.
11	DR. RODI: Okay. And do you feel like you
12	had a good relationship with senior management?
13	MR. STOCKHAUSEN: For the most part, I would
14	say, yeah.
15	DR. RODI: Did you have any issues
16	addressing safety concerns or getting the resources
17	that you needed to conduct your job?
18	MR. STOCKHAUSEN: I mean, describe issues.
19	There's always some tension between, you know, the
20	production and the protection aspect of what we do. I
21	think you always want more resources than you get, I
22	think.
23	DR. RODI: Sure.
24	MR. STOCKHAUSEN: But I would say for the
25	most part there was you know, it was good
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1	cooperation, and, you know, it was resourced pretty
2	well.
3	DR. RODI: Was there a reception of safety
4	concerns and issues to your satisfaction?
5	MR. STOCKHAUSEN: Not always.
6	DR. RODI: Can you provide some examples?
7	MR. STOCKHAUSEN: Well, I think the you
8	know, culturally it was a large company, and I
9	described it as a distributive culture, so with 300
10	bases, you would have, you know, maybe 600 cultures
11	that day, if you figure you've got the shift change
12	coming in every 12 hours.
13	So it was difficult sometimes to get the
14	information or the flow of information or the
15	communication of the corporate expectation all the way
16	out into the field on a consistent basis, I think was
17	probably one of the one of my major pain points.
18	DR. RODI: Do you feel that that compromised
19	safety at any point?
20	MR. STOCKHAUSEN: I wouldn't say it
21	compromised safety. I think that, you know, everybody
22	out in the field wanted to do a good job and was you
23	know, based on their experience and their
24	professionalism, did a good job. So I think that would
25	be a little strong to say it compromised safety.
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6 1 DR. RODI: Was there a risk assessment or a 2 risk management program in place at Air Methods while 3 you were there? While I was there? 4 MR. STOCKHAUSEN: Yes. DR. RODI: Can you briefly describe that 5 program? 6 MR. STOCKHAUSEN: Well, it kind of fell in 7 different areas, and we had, obviously, the tactical 8 risk assessment and the flight risk assessment process 9 for the pilots, so they do a preflight risk assessment 10 11 every day and include dynamic and static factors. That was communicated through the OCC, so 12 the OCC, operational control center, had an idea what 13 14 the risk was, you know, for each individual flight. And then from a more strategic level, you know, we 15 would work through some of those meetings that I talked 16 We called it our SRM process, safety risk 17about. management. 18 So if we were, you know, starting a new 19 base, one of the things we did was develop a base 20 21 startup process that included -- that was developed 22 through the risk management process, so the risk management was included in that, so when you did your 23 base startup, you know, you were doing the risk 24 25 management piece, you know, all in one.

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DR. RODI:	Okay.
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2	MR. STOCKHAUSEN: You know, aircraft types,
3	changes in training, any of those kind of things on a
4	more kind of mid-level strategic level; you know, we
5	would do that.

And then probably where it was missing more than anything else or wasn't as strong as it could have been was more in the enterprise level, where maybe a new business model -- you know, the purchase of an asset or another organization, those kind of things probably wasn't as formal as it should have been.

But all those processes existed within theorganizations.

So I'd like to talk about two of 14 DR. RODT: 15 the risk management processes that you addressed. The first would be that that's conducted by the pilot prior 16 Were you involved in creating that, or was to flight. 17 18 that in existence while you were -- before you came? MR. STOCKHAUSEN: I had review of it. 19 Ι wasn't say I was necessarily involved in the 20 development of it, but certainly had review and could 21 22 comment on that process. And was that risk assessment DR. RODI: 23 unique to each base or unique to each aircraft, or was 24

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25 || it generalized amongst --

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1	MR. STOCKHAUSEN: No, it was pretty
2	generalized. You know, when the FAA came out with its
3	original notice and I forget what number it was
4	8000-299 or 301 or whatever, it was back years ago when
5	they were talking about the risk assessment, you know,
6	there was two ways you could do a risk assessment,
7	either the training method or the procedural method.
8	Training method was more basic in the
9	content of the risk assessment itself, so, you know, it
10	could be a four by four, five by five, just kind of
11	really basic risk assessment, but on the back side of
12	that there was supposed to be training relative to all
13	the things that we wanted the pilot to be aware of.
14	It was more of an awareness tool than an
15	actual procedure or proceduralized. And then the other
16	one was the procedural method, where, you know, you
17	have individual line items. You assign a risk value
18	to it. You reach a particular threshold, then you have
19	to do something with that, either contact management or
20	make sure you had certain mitigations in place, or
21	those kind of things.
22	So initially we went the organization
23	went with the training method.
24	(Pause.)
25	MR. STOCKHAUSEN: So anyway, where was I?
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1	Again, procedural. So I had pushed from the beginning
2	for I thought the procedural method was probably a
3	little bit better than the training method. I thought
4	that we could probably use the OCC to a better extent
5	than we had been in the past, more like a second in
6	command; you know, a virtual second in command, having
7	somebody with that that had flown EMS and because
8	that's how we staffed our OCC with EMS pilots and
9	could provide that second brain thought process.
10	So initially now, that's not the
11	direction we went, but we were morphing that direction
12	and migrating that way by the time I had left.
13	DR. RODI: So the second risk assessment
14	process or program that I'd like to discuss a little
15	bit about would be risk assessment that you did with
16	regards to information or changes that your company was
17	made was that made on any documentation that would
18	come in from manufacturers or the FAA, such as
19	airworthiness directives, service bulletins
20	MR. STOCKHAUSEN: Normally not, unless it
21	was something that required a major change, but the way
22	that was handled was primarily through the engineering
23	side of the house.
24	DR. RODI: Okay.
25	MR. STOCKHAUSEN: So, you know, the ASBs and
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1	the ADs were things that were, you know, looked at,
2	evaluated. Obviously the ADs had to be taken care of;
3	ASBs took the priority.
4	But the SBs, the service bulletins, were not
5	a mandatory requirement. But they I think one of
6	the holes we found out after the accident there in
7	Frisco was that those the SBs would come in to a
8	single location, and whether they were operationally
9	oriented or maintenance oriented, they were still
10	handled through the one central location and didn't
11	necessarily get distributed, because there was no
12	process to distribute them out
13	DR. RODI: Right.
14	MR. STOCKHAUSEN: at that time. I think
15	since it's changed, but prior to the accident there was
16	no process for the SBs to get any kind of
17	prioritization or handling, really.
18	DR. RODI: Thank you. Did the company have
19	a non-punitive safety or incident-reporting mechanism
20	while you were there?
21	MR. STOCKHAUSEN: We did. We had several;
22	inherited AIDMOR, which is accident, incident, damage,
23	malfunction operations report. So we just kind of kept
24	that name.
25	We were working on putting that into and
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1	automating that process as part of the SMS, and it was
2	still basically a manual system even though it was done
3	on a computer and you could export it to Excel and do
4	some basic, you know, sorting and research, that kind
5	of thing.
6	But early on one of the things that I wanted
7	to do was look at the voluntary safety programs that
8	were so effective on the 121 side of the house. Why
9	can't we use them, even though they weren't designed
10	necessarily for 135 helicopter operators.
11	So one of the first things we did was we put
12	into a place a ASAP program, so that really took the
13	place of the voluntary reporting, you know, so that the
14	AIDMOR kind of took on more of a captain's report:
15	Here, these are the 25 things we want you to report,
16	because we want to keep an eye on these things.
17	The ASAP became more, you know, the
18	voluntary part, and, you know, through the ASAP, and
10	also we started an MSAD program: found out very early

also we started an MSAP program; found out very early 19 20 on in the ASAP process that we were exposing mechanics, 21 depending on what the report was, and them not necessarily having the same protections as the pilots, 22 23 so we started an MSAP program as well. But there were multiple ways to get information in an anonymous third-24 25 party reporting system that was managed through a third

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1	party by contract.
2	So there were a number of different ways to
3	get the information into the system, and they were all
4	non-punitive.
5	DR. RODI: And were you responsible for that
6	program, or a part of the program?
7	MR. STOCKHAUSEN: Initially, just through
8	the startup process, we hired a ASAP manager, and
9	Sheldon's been there, I think, for about six years;
10	it's about a seven-year-old program at the company, I
11	believe. We started it in about '09 or '10.
12	DR. RODI: And while you were there, were
13	there any safety issues or incidents that were related
14	with either the base, the accident pilot, or the
15	helicopter itself that you were aware of?
16	MR. STOCKHAUSEN: You know, not that I can
17	recall.
18	DR. RODI: Let's talk briefly about the
19	go/no-go decision that the company had and how it
20	related to risk assessment. Can you describe that for
21	me?
22	MR. STOCKHAUSEN: Well, I mean, based on
23	the you know, the relevant factors, weather, there
24	were obviously weather minimums to take into account;
25	duty time, aircraft maintenance, so all the aviation

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1	factors that needed to be taken into account I think
2	were taken into account.
3	The pilot had the final you know, it was
4	two-tier operational control. So the first tier was,
5	is the aircraft certified? Does it have time on it?
6	You know, those kind of things. Does the pilot, you
7	know, have a current medical. Is his check rides and
8	everything up to date? Has he had the appropriate
9	rest?
10	So that level that tier-one level was
11	pretty much taken care of through the 411 system, you
12	know, in the OCC and how the pilot dutied in for that
13	day. The system would back-check all that information.
14	If there was any problem with any of that
15	information, then the OCC would get an alert, and that
16	pilot should not be able to get a flight release until
17	anything any of those anomalies are cleared up.
18	Then the tier-two level is that level we
19	were just talking about, where the pilot actually
20	dispatches the aircraft. So the communication center
21	would communicate the request or the need for a flight,
22	and then the pilot would make all those decisions based
23	on what we had just talked about: the weather, the
24	maintenance, the dynamic/static factors, even to
25	include eventually, you know, how long the pilot had
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1	been on duty; how long the pilot had been in EMS; how
2	long the pilot had been with the company; does he have
3	an experienced medical crew? You know, all those were
4	risk factors that were taken into account before the
5	pilot would launch or dispatch the flight.
6	So that was the go/no-go decision. And
7	obviously, I mean, the industry I think would hold to
8	that three to go, one to say no, and now moving with
9	the new HAA rule of, you know, four to go, including
10	the OCC much more robustly in that process now, as of
11	the 23rd of this month. So it would be kind of a four
12	to go, one to say no kind of process.
13	DR. RODI: How would weather specifically
14	factor into that? Is there one aspect of weather that
15	would result in a no-go versus a go?
16	MR. STOCKHAUSEN: I mean, obviously, you
17	know, thunderstorms, icing, you know, visibility,
18	ceilings below minimums; you know, any of those major
19	things would certainly force, I would think, a no-go
20	decision on the part of the pilot.
21	DR. RODI: Now, would that be the forecast
22	for a thunderstorm or the actual existence of a
23	thunderstorm?
24	MR. STOCKHAUSEN: You know, that's a great
25	question, and I don't recall if we had had a provision
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1	for conditional language for weather in I don't
2	believe we did at that time. I don't believe so.
3	DR. RODI: And to what extent would a
4	helicopter system play a role in a risk assessment or a
5	go/no-go decision?
6	MR. STOCKHAUSEN: Well, it depends. If it
7	was something obviously that could be MEL'd, it would
8	be MEL'd and deferred on the minimum equipment list.
9	Again, that would be a risk factor, depending on what
10	it is and what the flight was.
11	But it wouldn't necessarily force a no-go
12	decision, but it would certainly be taken account as a
13	risk factor, depending on what it was.
14	DR. RODI: As opposed to a system that was
15	inoperational or non-functional, how would a new system
16	or relatively new system be factored into a go/no-go or
17	a risk assessment process by the pilot?
18	MR. STOCKHAUSEN: You know, at the time I
19	don't think that I don't believe that we had set,
20	you know, a new piece of equipment or, you know, new
21	avionics or whatever in the aircraft as an additional
22	risk factor to consider. I think it was just taken as
23	part of doing business.
24	DR. RODI: Understood.
25	How was the risk assessment process and the
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1	go/no-go decision outlined in company procedures or
2	policies?
3	MR. STOCKHAUSEN: It was in the GOM, general
4	operations manual. I don't believe I know that
5	maintenance had their own risk assessment process that
6	they would use. I don't recall, again, if it was in
7	any OCC documentation. I know for sure it was in the
8	GOM.
9	DR. RODI: Excellent. And how was it
10	enforced?
11	MR. STOCKHAUSEN: The risk assessment?
12	DR. RODI: Uh-huh.
13	MR. STOCKHAUSEN: I'm not necessarily sure
14	you would say it was enforced. It would you know,
15	part of our IAP or audit process is we would go and
16	look and, you know, just make sure the process was
17	being followed.
18	As to, you know, identification of any
19	anomalies or, you know, taking a look at it and do a QA
20	relative to the flight itself and saying, well, here we
21	had this flight; this is the issues we faced; here was
22	the risk assessment. You know, where do we need to go?
23	Do we need to adjust any values? Do we need to add
24	anything to the risk assessment?
25	That's not something that we in the safety

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1	department were involved in. We were more involved in
2	compliance with the existing process itself, I think,
3	more than looking at any kind of QA capability or
4	changes that could be made in the process itself.
5	DR. RODI: Okay. Excellent. Thank you.
6	So switching directions a little bit, we'll
7	talk about the relationship between the Federal
8	Aviation Administration, or the FAA, and Air Methods.
9	How often did they visit or perform
10	inspections at Air Methods?
11	MR. STOCKHAUSEN: Gosh, I mean, as far as
12	Air Methods goes, they were around quite a bit. We
13	would have at least our monthly CMT meeting, which I
14	was part of. I know there were a lot of geographic
15	inspections.
16	Matter of fact, we developed a reporting
17	form through our ETQ, which was our enterprise software
18	program for SMS, on geographic reports, or geographic
19	visits.
20	Actually it was designed for any regulatory
21	agency that would visit a base, so that we knew who was
22	there, why they were there. And one of the things we
23	were doing on that form was tracking what questions
24	were asked and what they were looking for, with the
25	intent being to add that into out IAP, into our base

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1	audits, to make sure that we were looking at everything
2	we needed to look at from the perspective that the FAA
3	was looking at things.
4	But I know there were quite a few I can't
5	give you a number, but I know there were quite a few
6	geographic inspections, and I know they were there I
7	mean, they would come visit us, particularly through
8	development of the SMS, we met every two weeks with
9	their representatives for the SMS; you know, through
10	the CMT. So there was quite a bit of activity.
11	DR. RODI: And what was your involvement
12	with that, aside from the large monthly meeting?
13	MR. STOCKHAUSEN: Mostly that was it.
14	DR. RODI: Okay. How would you quantify or
15	describe your relationship with the FAA and your
16	interactions?
17	MR. STOCKHAUSEN: I think from a safety
18	perspective we had, I would say, an excellent
19	relationship, you know, with the FAA. We would meet on
20	a monthly basis. Obviously ASAP meetings we had, you
21	know, every two weeks, so they had their FAA
22	representation there at our ASAP/MSAP meetings.
23	You know, when the SAS so the safety
24	assurance system that the FAA's putting into place to
25	help manage a little differently because of the SMSs,
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1	or the safety management systems, that are in place.
2	You know, we again were meeting we
3	started meeting again fairly regularly with the FAA, on
4	kind of a biweekly basis with their safety
5	representatives, to help us, you know, understand what
6	the SAS was, what the data collection tool was; getting
7	information through that data collection tool, again,
8	that we could add into our IEPs, our internal
9	evaluation program, so that there were more eyes out
10	there looking, so if they were we were pretty open
11	with sharing our IEP information and data with the FAA.
12	So, you know, I would say it was a good
13	professional working relationship, from my perspective.
14	DR. RODI: Excellent. Are you aware of any
15	enforcement actions that may have been taken by the FAA
16	involving either the base, the accident helicopter, or
17	the accident pilot?
18	MR. STOCKHAUSEN: Not on the helicopter or
19	the pilot that I can think of, or the base.
20	DR. RODI: Okay. Changing directions again,
21	were you aware of the Temple, Texas event that took
22	place prior to the Frisco accident? I believe it was
23	about a year prior or so?
24	MR. STOCKHAUSEN: Temple, Texas? Can you be
25	more specific?
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1	DR. RODI: Where the it was not an
2	accident. It was an incident where the pilot perceived
3	locked pedals or an inability to control the helicopter
4	at takeoff and put it back down, was able to keep the
5	helicopter upright, and there was no damage.
6	MR. STOCKHAUSEN: Yeah. I vaguely remember
7	something about that. Yeah.
8	DR. RODI: Now, would you directly be
9	involved with any incident or event, investigation
10	process, or was that
11	MR. STOCKHAUSEN: Normally not directly. If
12	there was something that was investigated, one of my
13	staff would normally do it if it was fairly minor
14	incident at the local level.
15	DR. RODI: Okay. So you're not directly
16	aware of the Temple, Texas event and the loss of
17	control.
18	MR. STOCKHAUSEN: You know, now that you
19	mention it, I recall hearing about it, but that's about
20	it.
21	DR. RODI: Okay. So you were not involved
22	in any of that or any of the flow of information that
23	resulted after that?
24	MR. STOCKHAUSEN: Not that I can recall.
25	DR. RODI: Okay. So we talked briefly
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1	earlier about safety information notices, service
2	bulletins, airworthiness directives, and their flow,
3	how they come to the engineering department, as opposed
4	to coming to you for any sort of review, distribution,
5	or risk assessment.
6	So I have a safety information notice that
7	came out from Airbus Helicopters following the Temple,
8	Texas event, and I'll give that to you for a quick
9	review.
10	And my question is, were you aware of this
11	while you were at Air Methods? Was it brought to your
12	attention?
13	MR. STOCKHAUSEN: No. I wasn't aware of it
14	till after the fact.
15	DR. RODI: Okay. So by after the fact, do
16	you mean after
17	MR. STOCKHAUSEN: After the accident.
18	DR. RODI: the Frisco accident?
19	MR. STOCKHAUSEN: Uh-huh.
20	DR. RODI: Okay. So prior to the Frisco
21	accident, this safety information notice would have
22	been distributed through the engineering department
23	MR. STOCKHAUSEN: Correct.
24	DR. RODI: and would not have necessarily
25	come to your attention. If it would have been shared
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1	with one of your staff members at the time of the
2	Frisco accident or prior to the Frisco accident, was
3	there a means or a method for that staff to bring it to
4	your attention or to other aspects of Air Methods'
5	attention for pilot information, distribution to the
6	pilots?
7	MR. STOCKHAUSEN: There was. I mean, part
8	of the process, it was designed to all feed up, you
9	know, from the field into the different level meetings.
10	So if there was a concern or an issue out
11	there, it should have been noted, brought to our
12	attention, documented, and then we would feed that into
13	the first level, which was the SIRT, or the safety
14	information roundtable, safety action roundtable, so
15	that lower-level managers were in the SIRT.
16	So if there's something they could do as
17	stakeholders to deal with something, they would do so.
18	Again, it would be documented in the meeting minutes
19	and the action items and those kind of things.
20	If it was something that was going to be on
21	their purview, then that would be funneled up into the
22	SART, which is safety action, which was the 119 staff
23	primarily, and me and, you know, some others.
24	And, again, if that was if it was
25	something that was determined that was needed, you
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1	know, financial signed off or those kind of things,
2	then it would be routed up into the SORT, so the
3	oversight roundtable.
4	But, yeah, I mean, there was process there
5	that, if it was brought to our attention, we could work
6	it up through the different meetings. And there also a
7	TRB or technical review board that met, and one of my
8	staff normally would sit on that meeting.
9	And this, you know, again, because it's a
10	operational issue, may not have come through that
11	venue, through the technical review board, but, yeah,
12	to answer your question, I guess, long-winded, yeah,
13	there was a process for that.
14	DR. RODI: Okay. Excellent. And so you
15	were not specifically aware of this following the
16	Temple, Texas event but became aware of it after the
17	Frisco, Colorado accident.
18	MR. STOCKHAUSEN: Correct.
19	DR. RODI: Okay. Have you ever experienced
20	issues or difficulties with moving a safety information
21	notice or an operational service bulletin through the
22	process to get management to buy off on it or to get it
23	out to the pilots so that they can change their
24	procedures or be mindful of a safety issue?
25	MR. STOCKHAUSEN: You know, if it came to
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1	our attention, no, but there was you know, obviously
2	there's times and this was one of them where
3	things didn't percolate up. But I think if things that
4	did percolate up and were worked through the system and
5	the process or obviously were documented, then they got
б	the proper attention. But if it didn't, then it
7	didn't.
8	DR. RODI: Sure.
9	MR. STOCKHAUSEN: So the second item that I
10	would like to ask you about is the service bulletin
11	that came out from Airbus. It was in February, so
12	prior to the Frisco, Colorado, accident, but after the
13	Temple, Texas, event. And so my question is: Were you
14	aware of this when it came out?
15	MR. STOCKHAUSEN: No. No, and again for the
16	same reason. You know, the service bulletins, even the
17	safety information notices, you know, the way it was
18	designed throughout the system would not necessarily
19	bring it to my attention, so
20	DR. RODI: Okay. So when something did move
21	through the system properly, either through the
22	engineering department or it came to your attention and
23	then you were able to bring it to the different
24	management meetings, how did this information then get
25	disseminated out to the pilot? Were you responsible

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1	for that? Was that another part of the program?
2	MR. STOCKHAUSEN: Yes. You know, again, it
3	would come out in different ways. I mean, we had
4	safety notices, alerts, and bulletins, you know, a
5	process, depending on the seriousness of the issue, you
б	know, how it would get out initially. But during the
7	time you're talking about, most of the information for
8	the pilots would have been disseminated through the 411
9	system.
10	DR. RODI: Uh-huh.
11	MR. STOCKHAUSEN: And then information for
12	the mechanics would have been through Ramco or email,
13	some other process like that.
14	DR. RODI: So with the 411 system, was there
15	any way to ensure that the pilot received it or maybe
16	they received it but there's no way to guarantee that
17	they actually read it?
18	MR. STOCKHAUSEN: Yes. I believe we could
19	determine if they had opened up the particular
20	attachment, but there was no way to I mean, even if
21	we and I don't think we did at the time, couldn't
22	guarantee that they had read it, so
23	DR. RODI: Okay. Any concerns with the
24	process for safety information notices, service
25	bulletins, airworthiness directives coming in to the
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1	company or being distributed properly?
2	MR. STOCKHAUSEN: Ask that again.
3	DR. RODI: Do you while you were employed
4	at Air Methods, did you have any concerns about the way
5	safety information notices, service bulletins or
6	airworthiness directives would come into the company
7	and then be handled or distributed?
8	MR. STOCKHAUSEN: You know, I not at the
9	time. I didn't actually realize that it was a gap, you
10	know, in the process, so obviously, like I said, the
11	ASBs and the ADs were issued and had the specific level
12	priority on them, but the safety information notices,
13	service bulletins, the things that weren't mandatory, I
14	think that was a whole that was a gap in the
15	process.
16	DR. RODI: Thank you. Can you describe your
17	relationship with Mr. Mahaney.
18	MR. STOCKHAUSEN: You know, I knew Pat, had
19	met him off and on over the years. I know he was long-
20	term employee with the company. You know, I mean, my
21	interaction with Pat, he was on the he was a member
22	of our ASAP committee, you know, so he was involved in
23	the process. He was involved in safety. I mean, all
24	the dealings that I had with Pat were, you know I
25	don't recall anything negative or confrontational.
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1	DR. RODI: Did you ever fly with him?
2	MR. STOCKHAUSEN: I never did. No.
3	DR. RODI: Okay. And I think I asked this
4	already, but just to make sure, that you were not aware
5	of any safety reports or safety concerns with Mr.
6	Mahaney.
7	MR. STOCKHAUSEN: Not that I can recall.
8	No.
9	DR. RODI: Okay. Thank you. Did you have
10	any concerns about the accident helicopter? It was
11	fairly new, I believe, to the base, relatively
12	speaking.
13	MR. STOCKHAUSEN: No.
14	DR. RODI: Okay. And had you ever visited
15	the Frisco base?
16	MR. STOCKHAUSEN: I had been there once.
17	Yes.
18	DR. RODI: Okay. And when was that? Do you
19	recall?
20	MR. STOCKHAUSEN: Oh, it was probably four
21	or five years ago, or let me think. It was a good
22	while ago. I don't know exactly when, you know, but
23	years.
24	DR. RODI: Do you recall any concerns when
25	you visited that base?
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1	MR. STOCKHAUSEN: No.
2	DR. RODI: Okay. Thank you. Did you have
3	any immediate concerns following the Frisco accident?
4	MR. STOCKHAUSEN: Immediate concerns, yes.
5	Several. Obviously the fuel tank, the post-crash fire
6	was a concern. And then once we started digging into
7	things, the just the differences training between
8	the aircraft that they were flying before and this
9	newer B3e and the dual hydraulics, the accumulator, the
10	check, and the actually one of the things that
11	Michael and I had talked Michael Kunis, you know
12	Michael had talked about was the take-off profile.
13	So their take-off profile, because the pad
14	was around 9,000 feet, 9,100 feet, I think it was, so
15	with the older aircraft, a little less power, you know,
16	they would just take off, bring max power in, do a max
17	performance take-off, and just, you know, get altitude
18	over air speed kind of take-off.
19	And in the past, I had been taught if you're
20	going to do that, you know, you come up and you check
21	your controls at a hover. You set the aircraft back
22	down, and then you pull in your power to max, and then
23	do that take-off. So in looking at the video from
24	this, the take-off profile was Pat came up, but again,
25	from the ground, there was no hover check or control

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1 check that was done.

2	In our view, if that had been done, then the
3	notice of, you know, the accumulator and the issue with
4	the tail rotor would have been, I think, identified,
5	and Pat could have set the aircraft back down. But
6	because of that profile, that take-off profile, coming
7	up to a hover, checking the controls, putting it back
8	down, wasn't done, and again, he just brought it right
9	up, you know. And you could see and I know you've
10	seen the video, but you could see the aircraft start to
11	spin. You know, he's not ten feet in the air, and he's
12	already starting, and you can see the aircraft starting
13	to spin.
14	So, you know, that how we emphasized

15 that, the habit transfer between one aircraft type to 16 another, you know, how we taught high altitude 17 operations, you know, those were certainly concerns 18 that came to light after the accident for me. 19 DR. RODI: Okay. Do you recall any

20 immediate actions that the safety department took 21 following the Frisco accident?

22 MR. STOCKHAUSEN: Let's see. Immediate 23 actions that the safety department took? You know, we 24 weren't normally in the habit of taking actions. We 25 were in the habit of recommending actions. So I know

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that, you know, obviously we wanted to get a handle and 1 get ahead of the fuel system. 2 I know we had identified through the TRB probably about, gosh, three or four 3 4 years ago, there may be an issue with that particular fuel tank in that particular aircraft, and had sent a 5 letter, I know, to Eurocopter at the time, you know, 6 7 Right? It was Eurocopter at the time. Airbus.

But I'm not sure exactly what the follow-up 8 was on that or, you know, why it kind of died on the 9 vine, you know, it seemed like, so obviously we wanted 10 11 to resurrect that activity. You know, changes to how the service bulletins, safety information notices were 12 routed into the system, and what priority they may have 13 gotten, even to the point of understanding what the 14 difference was between having a wrench on it and wings 15 You know, I'm not sure that was even recognized 16 on it. here as a safety information notice, but, you know, how 17 does it get routed. 18

DR. RODI: Could you explain a little bit the TRB process that you mentioned with regards to the letter that was sent to Eurocopter.

MR. STOCKHAUSEN: The TRB would meet pretty much on a monthly basis, would review component relationship issues, MEL issues. I can remember in the early days, you know, we were -- again in the 350

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1	aircraft, we were having an issue with generators not
2	making you know, coming back in from being rebuilt
3	and making about 50 hours.
4	And one of the things the TRB identified was
5	that getting back to the manufacturer, that they change
6	their run-in process for the brushes, so instead of
7	running the brushes in at the factory, they stopped
8	doing that, and they sent them out. And then because
9	they weren't running them in, then we were having
10	reliability issues with them in the aircraft, so those
11	were the kind of things that the
12	DR. RODI: Okay.
13	MR. STOCKHAUSEN: that the TRB could
14	identify, get with the manufacturer, if there was
15	something that needed to get done or process that
16	needed to take place.
17	I know that I'm trying to recall. I know
18	there was some activity around that letter. It didn't
19	just die on the vine. I know that I believe that
20	there was some communication back and forth with Airbus
21	about the process, and I believe again I recall
22	sorry for the qualifiers, but
23	DR. RODI: No worries.
24	MR. STOCKHAUSEN: that there was some
25	talk about a system that they were using in the French
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1	military which was a crash-relief fuel system, so there
2	was some talk about that and even some talk about us
3	providing an aircraft for some engineering for them.
4	But I don't again, I don't know why that kind of,
5	you know it wasn't a high enough priority or it was
б	overcome by events or, you know, got pushed back
7	somehow. I'm not sure exactly how or why that
8	happened, but
9	DR. RODI: Do you remember when that was
10	prior to the Frisco accident?
11	MR. STOCKHAUSEN: You know, it was after
12	Tucson.
13	DR. RODI: Okay.
14	MR. STOCKHAUSEN: And that was what really
15	kind of kicked it off. And then oh, gosh. It was
16	an accident I'm trying to think of where it was now.
17	I think it was in Missouri. There was a hard landing.
18	There was no fatals, some injuries, and the fuel tank
19	ruptured, and there was fuel everywhere, but no
20	ignition source. So it was kind of like, okay, we
21	dodged the bullet on that one.
22	DR. RODI: And that was an Air Methods?
23	MR. STOCKHAUSEN: That was an Air Methods.
24	And, gosh, I can't think of where it was now. But
25	those two incidents, so after Tucson, and then that
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1	particular accident, in that time frame, so
2	DR. RODI: Okay. So you mentioned the
3	safety letter to Eurocopter at the time regarding fuel
4	tank issues, and then you changed following the
5	accident how safety information notices, service
6	bulletins were routed. Do you recall any other changes
7	that were made following the Frisco accident? Or
8	recommendations that you made to?
9	MR. STOCKHAUSEN: Yes. You know, other
10	than, you know, what I had mentioned before, the
11	profile, the take-off profile
12	DR. RODI: Okay.
13	MR. STOCKHAUSEN: the training, the
14	differences training, I think also the I'm trying to
15	think where that came in. Changes, recommended changes
16	to the risk assessment. I mean, this was a this
17	flight was not a medical flight. It was a PR flight.
18	Other than that, I don't recall.
19	DR. RODI: Okay.
20	MR. STOCKHAUSEN: I don't recall any other
21	recommendations.
22	DR. RODI: Okay. Can you describe the
23	structure of the safety department while you were at
24	Air Methods? You were the director of safety. How
25	many employees did you have or what was the structure?

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1	MR. STOCKHAUSEN: A couple years ago, I was
2	made the VP. I was made a VP of safety.
3	DR. RODI: Okay.
4	MR. STOCKHAUSEN: And then I had a director
5	of flight safety, which was Michael, and I had program
6	managers, so I had an IP manager, an ASAP/MSAP manager,
7	SRM or risk data manager, and a FOQA manager. And then
8	I had at one time, I had one full-time regional
9	safety person for every region that we had.
10	Now, the past year or 14 months, maybe 18
11	months that I was there, I had some attrition in my
12	regional staff, and I wasn't allowed to rehire and
13	backfill those positions, and then through further
14	reductions in force, I was mandated to lay off 5
15	percent of my staff, so I had to lay off two people,
16	which was actually more than 5 percent, but
17	So I went from about 18 let me see. I
18	had ten for a very short time, I had ten; regional
19	had six so, yes, 18. When I left, I was down to
20	five regionals; one, two, three, four, five so ten
21	people. My reporting structure changed, too. I had
22	gone from reporting to the CEO to a senior VP in that
23	period of time.
24	DR. RODI: Okay. The reduction in force
25	that you went through, was that prior to Frisco or
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1	after Frisco?
2	MR. STOCKHAUSEN: Prior to.
3	DR. RODI: Okay. And the reporting
4	structure, was that prior to or after Frisco?
5	MR. STOCKHAUSEN: Prior to.
6	DR. RODI: Okay. Do you feel the reduction
7	in force that you experienced, the attrition that you
8	experienced caused any issues or created any issues for
9	how you were able to do your job and promote a safe
10	environment?
11	MR. STOCKHAUSEN: I guess the easy answer
12	would be yes. You know, I think I mean, obviously
13	when you've got a I mean, I had to lay off my AP
14	manager, so the you know, you're dividing all those
15	duties back into a smaller workforce, so, you know,
16	what you were able to accomplish before with a larger
17	workforce and more resources became problematic, you
18	know, with a smaller workforce, also with you know,
19	with the regionals, they were my regionals were
20	multi-tasks.
21	They were all safety professionals, and they
22	were professionals in they were either had a
23	maintenance background, operations background, or
24	clinical background, because more than half the
25	business was, you know, clinical, clinicians, full-time
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1	employees. So I used them for RCAs or root cause
2	analysis. I used them to do audits. They were all
3	IS-BAO trained, certified auditors. I used them to do
4	education.
5	I used them to do help out with the risk
6	management at the base level, program level, interface
7	with the customer, and do all that. So I went from
8	having one in every region to really at one time, less
9	than one for every region to the five. At that
10	time, we had 12 regions. They backed it down to just
11	reorganizing with the ten, so I had one for every two
12	regions.
13	The FOQA manager left. I wasn't allowed to
14	backfill him, so I doubled up that duty with my
15	analyst, Jeff. I don't know if you met Jeff or not,
16	but
17	DR. RODI: Yes.
18	MR. STOCKHAUSEN: Jeff was able to handle
19	both positions. And then kept Sheldon in the
20	ASAP/MSAP. He was pretty busy doing that, and then the
21	IP duties, I divided up, because we had that pretty
22	well automated as far as being able to administer the
23	process in ETQ, so it was just somebody to provide
24	oversight there and work on the schedule and then, of
25	course, the audit duties had to be divided up.
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1	And we would do it was kind of a three-
2	tier process, where we would do base audits or the
3	self-audit, self-assessment that the bases would do,
4	and then my auditors would do a base audit, and then we
5	would look at our departmental audits or systems
б	audits, we call them, within the organization, which we
7	were tasked to do, you know, once a year.
8	DR. RODI: Okay.
9	MR. STOCKHAUSEN: But, yes. I mean, I would
10	say it obviously impacted what we were trying to do.
11	DR. RODI: Was the Frisco base affected by
12	the loss of one of your regional
13	MR. STOCKHAUSEN: No.
14	DR. RODI: Okay.
15	MR. STOCKHAUSEN: They the one that was
16	assigned to them was the original one, so
17	DR. RODI: Okay. Were any employees
18	dismissed as a result of the Frisco accident?
19	MR. STOCKHAUSEN: Well, let me think. I
20	can't think of anybody that was dismissed. No. Not
21	that I can think of.
22	DR. RODI: And so the downsizing within the
23	safety department was taking place prior to the
24	accident and
25	MR. STOCKHAUSEN: Yes.
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1	DR. RODI: not a result of the accident.
2	MR. STOCKHAUSEN: Right.
3	DR. RODI: Your employment with Air Methods
4	ended in September of 2015. Can you elaborate on your
5	decision to leave Air Methods.
6	MR. STOCKHAUSEN: Well, it's never just one
7	reason. I guess I would say that, you know, I have
8	about ten years of runway left before I retire, and I
9	was, I guess, getting frustrated relative to my ability
10	to effect change, the reduction in staff, and being
11	basically the voice of aviation safety in a company
12	that considered themselves a medical company.
13	DR. RODI: Did your departure have anything
14	to do with the Frisco accident or safety concerns at
15	Air Methods?
16	MR. STOCKHAUSEN: I wouldn't say the Frisco
17	accident. Safety concerns, again, not necessarily
18	safety concerns. Again, it was just, you know, I felt
19	that through the change in the reporting structure, you
20	know, my access to the CEO and the ability to really
21	drive the change that I felt needed to be made or the
22	things done that I felt needed to be done, there was
23	just another layer or two of bureaucracy in the
24	organization that was really getting in the way. And,
25	again, it was just a level of frustration after that
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1	time, so
2	DR. RODI: Sure. And to be completely clear
3	and so that I understand you, it was your election to
4	leave Air Methods
5	MR. STOCKHAUSEN: Yes.
6	DR. RODI: and not them letting you go.
7	MR. STOCKHAUSEN: No. It was my choice. It
8	was not them. It was my choice.
9	DR. RODI: Okay. I'm going to open it up to
10	Dr. Wilson and see if she has any questions for you.
11	DR. WILSON: Thanks, Jennifer. Hi, Ed. How
12	are you doing? Do you need a break or anything?
13	MR. STOCKHAUSEN: No. I'm good. Thanks.
14	DR. WILSON: Okay. Jennifer, you asked many
15	of the questions that I had, and I apologize for my
16	voice. I'm fighting a little cold, so talking about
17	the staff reduction, did you ever feel that safety was
18	compromised due to the staffing reductions?
19	MR. STOCKHAUSEN: You know, again, I think
20	"compromised" is a pretty strong word. Affected,
21	impacted a little bit, and not necessarily, you know,
22	safety itself, but our ability to perform the functions
23	relative to the SMS that would provide information for
24	managers to make decisions, to do the analysis, to do
25	those things that you systematically that you needed
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1	to do in an organization with 500 aircraft and 14
2	certificates.
3	DR. WILSON: Okay.
4	MR. STOCKHAUSEN: Yes. It was difficult.
5	DR. WILSON: You mentioned the culture at
6	Air Methods. You said it was large and distributed.
7	How did this culture and there were some
8	communication problems distributing information across
9	the bases. How do you think that compares to other
10	organizations that you've worked for?
11	MR. STOCKHAUSEN: You know, I think and,
12	again, I was asked once how I would describe the
13	culture at Air Methods, and my in one word, and I
14	said, fragmented. And it really is a fragmented
15	culture. I think there's a lot of independence that's
16	given to the regions from a business perspective. I
17	think that I believe that there was a lot of room
18	for improvement in standardization.
19	You know, you get the old wink and the nod.
20	I would hear anecdotally out in the field
21	occasionally and this is not across the board, but,
22	you know, some of the issues that you realize you have
23	to deal with, and if it's happening one place, it's
24	probably happening in another. It was just kind of the
25	wink and the nod. You know, I know that's how
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1 corporate wants you to do things, but this is how we do
2 things out here, you know, kind of mentality at times.

So it was a very difficult environment to 3 drive consistency in culture. I think, you know, the 4 union came on board back in '08 or '7 or maybe even 5 before I got there. I don't recall exactly when it 6 7 came on board. But it's been there for a while. There was a level of distrust in the pilot group, I think, as 8 a group, with the management. So it was a difficult 9 environment to operate in, just trying to get -- you 10 11 know, for FOQA, I mean, we had the Apario that we were We bought 150 of them to put on the 12 putting on. aircraft. 13

As far as I know, when I had left, we still hadn't put one on an aircraft, and it had been a year and a half, for two reasons. Number one, because I had to try to negotiate with the union, because we had cameras in the cockpit, and they were not -- you know, they didn't like that idea.

And the other one was working for our engineering department. Because of having to work with the union, we needed to change the position six inches of the unit. Well, that changed the focal lane. It changed a couple things, and it's very sensitive. It has to be calibrated for a particular position in the

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1	aircraft, so that changed the STC, and it you know,
2	it took our engineering group working with Apario a
3	year and a half of back and forth that, you know, is
4	Not a maintenance person, I didn't think was
5	all that necessary, but I think it could have been done
б	in a lot shorter time frame, and, you know, just having
7	to deal with the union and do those negotiations to get
8	them to accept that there's a camera in the cockpit,
9	that we're going to use it in a specific way; it's
10	going to be part of the FOQA program. It's protected
11	under Part 13 and 193, because it's digitally data
12	or digital data that's voluntary collected.
13	You know, all those things, so, you know, it
14	was I guess I could sum it up to say sometimes it
15	was a difficult environment to work in.
16	DR. WILSON: The fragmented nature the
17	fragmented culture as you described it, how do you
18	think that could have been improved? What could have
19	been done to change that?
20	MR. STOCKHAUSEN: Well, first off, consider
21	yourself an aviation company. We were dealing in
22	aviation, and I think lots of times, it would take
23	somewhat of a back seat to either the business or the
24	clinical side, as far as prioritization of resources,
25	focus on cause and effect. But, you know, just trying

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1	to get you know, get that force of communication
2	from the very top on down. There was a disconnect, I
3	think, between the corporate expectation and what was
4	talked about at Englewood, and how it translated to the
5	individual base employee.
6	You know, it was a fairly large organization
7	where you had you know, being distributive, you
8	know, you had that layer of line management, middle
9	management, in between, and I think lots of times that
10	autonomy that was given to those managers at all
11	levels I mean, not all levels, but all functional
12	areas within the region itself created filters in both
13	directions.
14	And it was difficult to drive home, so I
15	think, you know, a couple things that we recommended,
16	which you got to do training with your middle managers.
17	I mean, you would take a good clinician or a good
18	mechanic or a good pilot, and you'd make them a manager
19	without the skill set to be able to manage what you
20	were asking them to manage.
21	So if I could have done one thing relative
22	to trying to fix the fragmented or distributive nature
23	issues was to for me, from my perspective, from a
24	safety and risk perspective, would be to, number one,
25	make it the absolute number one core value of the

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1	organization, not a priority. Priorities change. Make
2	it a core value. This is not negotiable, period. And
3	then provide training and accountability and oversight
4	to that group of people between the field and
5	corporate.
6	DR. WILSON: Were these changes something
7	that you I heard you say that you did recommend the
8	training for middle management. How was that received?
9	MR. STOCKHAUSEN: You know, there were
10	several attempts made while I was there to provide some
11	training, but again, I think you've got to make it
12	if you're going to accomplish something in an
13	organization that size, you've got to be able to have
14	the proper management emphasis on it, and you've got to
15	keep at it. You've got to be persistent with it. You
16	can't do it just one time.
17	I mean, if you do it one year, with the size
18	of that organization, next year you've got 40 new
19	managers. What do you do with them? You've got to do
20	it that next year. You got to do it that next year.
21	You got to do it, you know, every six months. You just
22	got to keep at it. And I think the good intentions
23	were there, but the execution was not.
24	DR. WILSON: Was there any recommendations
25	that you made that you felt were really critical, that

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1	were either dismissed or that you had unsuccessful
2	attempts at getting any action taken?
3	MR. STOCKHAUSEN: I wouldn't say
4	unsuccessful. I would say that sometimes it took years
5	to get something, and you'd have to approach it from
6	one angle, and if you didn't have success there, then
7	you'd have to kind of back up and try this direction or
8	this process or I can't think of anything
9	necessarily that I would say that I recommended that
10	didn't get
11	I mean, you know, from a voluntary safety
12	standpoint, we wound up participating in five of the
13	six FAA voluntary safety programs. The only one we
14	didn't participate in was AQP. Again, it's not
15	something that was designed for 135 operators, but we
16	didn't really have access to simulators that we would
17	need to do the AQP, the advanced qualification process,
18	evidenced-based training that the 121 guys can do.
19	So, you know, those were obviously large
20	initiatives, and it took some time to get them through
21	the pipeline. You know, smaller things like I'd
22	mentioned before, the preflight risk assessment, trying
23	to get you know, it took some years for that
24	recommendation to come to fruition, and it was just
25	coming to fruition when I left relative to going to a

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1	procedural method with weighted risk elements in it and
2	mandatory consultation with the OCC. And, of course,
3	that came about, I guess, primarily because of the new
4	rule, but that was something that we were pushing, you
5	know, some years ago.
6	So incremental changes. An organization
7	that size, it's like the Titanic, so you don't you
8	know, you turn the rudder, and two years later, you get
9	change, so
10	DR. WILSON: Okay. You mentioned a few
11	recommendations after the accident about the flight
12	profile and I'm trying to review my notes. Were
13	those recommendations that you discussed, were those
14	formally made, or were they discussed in a meeting?
15	What was the process?
16	MR. STOCKHAUSEN: Yes. They were
17	discussed I mean, obviously I, you know, worked
18	closely with our 119 staff, so, you know, the chief
19	pilot, director of ops, director of maintenance, you
20	know, their assistants. So, you know, it was all
21	talked about. I mean, primarily, you know, the process
22	for those kind of things would be you know, those
23	changes could be made, and then you just communicate
24	those changes to senior leadership.
25	But obviously, there was you know, there
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1	was very high level activity and meetings relative to
2	any kind of tragedy like this that takes place, so, you
3	know, we had the requisite meetings, and hopefully
4	they've made all the changes.
5	DR. WILSON: Uh-huh. Was there any
6	discussion of adding the warnings, the hydraulic
7	warning light, to the helicopter after the accident?
8	MR. STOCKHAUSEN: Yes, there was.
9	DR. WILSON: What was that discussion? What
10	was involved?
11	MR. STOCKHAUSEN: You know, I know there was
12	a lot of that I wasn't involved in, in discussion
13	with Airbus, you know, how many kits. I believe that
14	there was a request made to order the kits to make the
15	changes in the aircraft. And then there was again,
16	if I recall, there was some issue with Airbus relative
17	to being able to you know, what they had in stock
18	and what they could provide.
19	I know there was some talk that PHI had gone
20	through the process, and I think all of their aircraft
21	had been modified. But I know that was in the works.
22	You know, obviously where it stands now, you know, I'm
23	not sure. But I know it was in the works.
24	DR. WILSON: Right. Okay. You mentioned
25	your total time I think you said around a thousand
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1	hours or just under a thousand hours.
2	MR. STOCKHAUSEN: 11,000.
3	DR. WILSON: Oh, 11,000. It's just hard for
4	me to hear over the phone. How much of that time was
5	helicopter time?
б	MR. STOCKHAUSEN: It's all helicopter time.
7	DR. WILSON: Oh, all helicopter. Okay. Who
8	at the FAA did you interact with the most?
9	MR. STOCKHAUSEN: Oh, gosh. Probably Brent
10	Wentworth was probably the one. He was kind of our
11	assigned liaison with the certificate for safety and
12	SMS. But, again, all the principals, so the PAI, PMI,
13	POI, we interacted with them on a fairly regular basis,
14	particularly now, it dropped off a little bit once
15	we made it all the way through the pilot project. But,
16	I mean, we were meeting with them on a regular basis,
17	going through our SMS development.
18	You know, we would have, you know above
19	and beyond the CMT meetings, we would meet with them,
20	you know, at least once a month as a group, to include
21	our 119 staff. And then Brent and a couple others we
22	would meet with on a regular basis, at times, you know,
23	once a week, to go through our processes. So there was
24	quite a bit of interaction.
25	I think and I don't want to speak for
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1	them. I was going to make a comment, but I'm sure
2	you've talked to them. There probably wasn't as much
3	as there could have been, but I think what there was
4	was pretty quality interaction between a safety
5	department and the FAA. Yes.
6	DR. WILSON: All right. Which department at
7	Air Methods was responsible for accident investigation?
8	MR. STOCKHAUSEN: That would be safety.
9	DR. WILSON: Okay. And how were you
10	notified of the accident?
11	MR. STOCKHAUSEN: Obviously we have a PAIP,
12	a post-accident incident plan, so any notification, I
13	would get a phone call for something like this.
14	DR. WILSON: And then what would you be
15	responsible for doing?
16	MR. STOCKHAUSEN: Well, that depends. I
17	mean, there's a call tree, so I had three
18	individuals I believe it was three that I was
19	responsible for notification, and then we had
20	developed you know, unfortunately, we had been
21	through a few of these things in my tenure there, so
22	early on, in about 2007, 2008, you know, we put
23	together a pretty comprehensive post-accident incident
24	plan that detailed everybody's responsibilities and,
25	you know, how we would operate everything from

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1	sequestering the records to notifications to
2	communication with media to, you know, go teams
3	launching and how all that's going to be coordinated.
4	So the initial call, though, would come
5	from would come through our OCC as part of the PAIP,
6	and, you know, myself and the 119 staff would probably
7	get notified first, and then we would make the calls up
8	to the CEO and obviously alert senior management as to
9	what's going on.
10	DR. WILSON: Okay. You mentioned, you know,
11	several accidents that had occurred at Air Methods.
12	Did you notice did you identify any trends amongst
13	the accidents, any consistent patterns that you were
14	seeing that were causing these accidents?
15	MR. STOCKHAUSEN: Well, kind of gross
16	trends. I mean, if you look at you know, again, I
17	thought that for a time we had done a pretty good job
18	with the CFIT accidents until Rockford. I mean, we put
19	NVGs in every aircraft. You know, we do iterative
20	training for IIMC recovery. You know, we did those,
21	just put a lot of effort into, you know, understanding
22	that, you know, 80 percent of the accidents happened in
23	reduced visibility, night, and bad weather, so try to
24	take steps.
25	I know that there was a move afoot before I
I	I

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1	left to put HeliSAS or the two-axis autopilot in all
2	the aircraft. HTAWS, you know, moving to the
3	simulators and doing that level of training, so, you
4	know, that was an early trend. You know, the thing
5	that I think about often and, you know, over the
6	course of my safety career, I've been to 13 of these
7	things, and that's just way too many as an operator.
8	One's too many.
9	But, you know, the decision-making on the
10	part of the pilot really bothers me. I don't you
11	know, you can put all the whizbang systems, training,
12	equipment in the aircraft, try to build the culture,
13	but if you have one pilot out there or one mechanic out
14	there that makes decisions based on other than their
15	professional judgment or what they should be making
16	decisions on, you can't control that.
17	And I think somehow we have to be able to
18	find a way to I mean, we've talked about it here.
19	We've talked about it there. I mean, can you is
20	there some way you can prescreen? Is there some type
21	of psychological profile that you can put these guys
22	through, to try to determine, are they going to be, you
23	know, risk-takers; are they going to be risk-adverse;
24	are they going to be anti-authority; are they going
25	you know, how are they going to behave when nobody's

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1	watching?
2	And, boy, to me, that's the silver bullet.
3	If I could figure that out, I would be pretty happy.
4	But I as far as trends go, you know, it's your area
5	of expertise. You know, human factors. I don't know.
б	I mean, we started with Jeff, and I brought Jeff on
7	board, because he you know, he had worked for NASA,
8	had done research projects on the human factor, so I
9	really wanted to start pushing some of the human
10	factors causes and see if we could identify particular
11	areas, you know, management, training, I mean, whatever
12	it happened to be that we could take a look at and see,
13	you know, what are we seeing.
14	We were just starting to make some progress
15	relative to that, I think, before things started to
16	implode a little bit, so
17	DR. WILSON: Okay. Besides the ASAP
18	program, let's say somebody had a safety concern that
19	they wanted to report. How would they report a concern
20	that didn't qualify for the ASAP program?
21	MR. STOCKHAUSEN: You said that did or did
22	not qualify for the ASAP program?
23	DR. WILSON: That did not.
24	MR. STOCKHAUSEN: Did not. You know, pretty
25	much the way we ran the ASAP was that you could report
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1	anything in it. We tried to make the delineation
2	between, you know, if you wanted to stay absolutely
3	strictly anonymous, then we had the anonymous reporting
4	program. If there was anything from a bird strike to a
5	UAV to a laser to obviously NTSB or FAA reportable, you
6	had the captain's report that we wanted to see. But
7	anything else could go and some of it did go through
8	the ASAP program.
9	So I was pretty comfortable with our ability
10	to the processes we had in place to receive the
11	information. I wasn't always as comfortable with the
12	employees' trust in the system to be able to report
13	what they wanted to report into the system. So the
14	systems were there, but I you know, and we got a lot
15	of good reports.
16	But, you know, one of the comments I made
17	earlier was that, you know, if it happened at one base,
18	chances are it's happening at another, so that was the
19	way that I tried to address things, because I knew that
20	I wasn't getting all the reports and all the data that
21	I could have gotten. So just, you know, try to take a
22	look at things and then, you know, do the investigation
23	relative to the report as it comes in, and see if
24	there's, you know, an iceberg, you know, what's below
25	the water line, so
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1	DR. WILSON: Okay. Was
2	MR. STOCKHAUSEN: I'm
3	DR. WILSON: there anything
4	MR. STOCKHAUSEN: Go ahead.
5	DR. WILSON: specific that you could
6	oh, I'm sorry. Were
7	MR. STOCKHAUSEN: No. I we're talking on
8	top of each other. Go ahead.
9	DR. WILSON: I was just wondering. When you
10	said that some of the pilots didn't you didn't think
11	they trusted the system, was there anything that you
12	could identify as to why they didn't trust it, or was
13	it just a, you know, pilots in general not trusting
14	that the reporting that they're doing is actually, you
15	know, anonymous and that there's going be no
16	consequences?
17	MR. STOCKHAUSEN: Well, you know, I never
18	saw there were a couple instances early on where,
19	you know, I tried to step in and intervene and say, You
20	know what, guys; they just we were just out there
21	doing an inspection. Safety was just out there. You
22	asked us to go out there and look at this, and then we
23	came back, and then you fire somebody. So it's like,
24	you know, you can't do that.
25	DR. WILSON: Right.
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1	MR. STOCKHAUSEN: You know
2	DR. WILSON: Uh-huh.
3	MR. STOCKHAUSEN: If you want us to look at
4	something, then, fine. We will be more than happy to
5	go out and investigate and be that impartial arm that
6	we're supposed to be, but you cannot go out and then
7	fire somebody two days or a day after we leave, because
8	obviously they're going to make that association.
9	You know, we and I talk about managers
10	and middle managers and accountability. You know, we
11	had managers where, you know, they would say, Do not
12	submit a report in AIDMOR unless I see it first. You
13	know, so those kind of things you know, and it
14	wasn't pervasive across the organization, and that's
15	why I talk about being fragmented and distributive.
16	When you've got that many bases, you've got pockets of
17	good and pockets of bad and pockets of in between.
18	But trying to manage for consistency among
19	all that is difficult, so, you know, there I think
20	there was an overall perception anecdotally of, you
21	know, whack-a-mole, and I think we had some 119
22	staff and, you know, I think we had some senior
23	staff where their initial reaction is and I heard
24	it, you know well, fire them; let's get rid of them,
25	you know. Well, let's look in to see what's going on
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1 first. Let's --

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2	You know, is it something we're doing? Is
3	it a systemic issue? Organizationally have we done
4	everything we can do to make sure they have the tools
5	and, you know, that they feel comfortable making the
6	decisions that we want them to make. You know, where's
7	the accountability? I mean, it is so it's a large
8	organization. You know, you've got 500 aircraft, and
9	if it were a 500-aircraft certificate and a 121
10	operator, there'd be 40,000 employees, not 3,000.
11	You'd have 50 people in the safety department, not ten.
12	You know, so a large number of aircraft
13	operating outside of any basic control in a under a
14	Part 135 that was not designed to support that size of
15	organization, so there's an awful lot of bits and
16	pieces there that can be changed that need to be
17	changed, you know, I think if we're going to be
18	successful in moving forward and stop these accidents
19	from happening.
20	I get pretty passionate about this stuff.
21	It's
22	DR. WILSON: Oh, this is great. You're
23	giving us really great information. Thank you. When
24	you mentioned that, you know, you talked to management

25 and said, We can't fire these people right after we do

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1	these inspections, did you feel like there were any
	improvements being made, or did you still feel like the
3	focus was on, you know, getting rid of the person that
4	was involved?

Initially I would say --5 MR. STOCKHAUSEN: you know, this is one of those things -- it's one of 6 7 those Titanic deals. It took some time. I think when I left, it was much better than when I got there. 8 Ι think they understood more about impact. 9 And, you know, honestly, part of the -- part of it had to do 10 11 with the voluntary safety programs. I mean, we did two LOSs, three LOSs, you know, so I think that over 12 time --13

You know, the ASAP program, you know, just the programs, the voluntary programs that were in place from a nonpunitive basis started to make an impact, I think, on the general workforce, but it takes time. I mean, once you've got an overall perceived culture of distrust, it takes an awful lot to turn it around.

And you have, you know, the requisite 10 percent that are never going to believe you. You've got the 10 percent that think you can't do wrong, and it's 80 percent you've got to try to do something with, so --

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DR. WILSON: Sure. Jennifer asked you about

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1	any concerns that you were aware of regarding either
2	the helicopter or the base or the pilots after the
3	accident. Did pilots start recording more hydraulic
4	events, or did you hear of more concerns from the line
5	pilots about these issues?
6	MR. STOCKHAUSEN: Well, I know there was
7	you know, as far as hearing about more concerns, I
8	don't recall the number of reports going up relative to
9	those issues. What we did do, I know, is through the
10	119 staff, the office of the chief pilot, and the
11	training was to put out guidance and information
12	specifically on, you know, the check itself, how the
13	check needs to be done and completed in that aircraft,
14	so you can make sure that the accumulator's fully
15	charged and, you know, you're not thinking you've got
16	any kind of tail rotor malfunction or issue.
17	I know that came out very quickly, and I
18	know the emphasis on training through the check airman
19	and training that particular process was emphasized, so
20	there were some things that were done immediately that
21	I can recall. I don't recall, you know, any kind of
22	uptick obviously, your awareness you know, we
23	tried to make sure the pilots were aware that this can
24	be an issue moving forward, particularly if you're
25	you know, you're going from an aircraft that doesn't

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1	have dual hydraulics to an aircraft that does have dual
2	hydraulics.
3	So from that perspective, there was
4	immediate action taken. Again, I don't recall any
5	uptick in reports relative to that, though.
6	DR. WILSON: Okay. And the last question I
7	have for you: What was the relationship between the
8	company and the union like?
9	MR. STOCKHAUSEN: Contentious. I think, you
10	know, there was you know, early on, the union
11	anything they would just run everything up into
12	arbitration. No matter what it was, they wouldn't
13	the systems board was very ineffective in doing
14	anything.
15	I was pushing the union from a safety
16	perspective. You know, let's do a joint safety
17	committee. Let's you know, look here, guys. We've
18	got ASAP. We're doing LOSA. We've got FOQA coming on
19	board. You need a pro-stands committee. You need to
20	start policing, you know, your own bad apples, so that
21	they don't affect the overall perception of the
22	organization with the pilot group and the union.
23	Didn't have a lot of success there, and as a
24	result of them running everything up through
25	arbitration, they basically ran the local bankrupt. I

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1	don't know if you guys are aware of any of this, but
2	they went into receivership. The national leadership
3	for the OPIU came down, and basically said they
4	dismissed all of the executives for the union, so the
5	president, VP, and secretary were all gone, and
б	basically put it into receivership.
7	And a guy named Steve Rush from the union
8	out there at Fort Rucker, the pilots union, was the guy
9	they put in charge of the trustee they put in
10	charge, and it was in receivership. I think the rules
11	say they could only be in receivership for 18 months,
12	and I know it was in receivership for over two years.
13	And Pat became involved in the union afterwards, and I
14	believe was a union officer.
15	But I yes. It wasn't a really good
16	relationship. I think it got better when some less
17	radical people became involved on the side of the union
18	for leadership, a little bit more common sense, and
19	could there's just a better relationship there, you
20	know. You could have discourse; you could have
21	conversation; you could have compromise. It wasn't
22	just head-butting. So initially I would say it was not
23	good. It was getting better.
24	DR. WILSON: All right. Great. Thanks, Ed.
25	I really appreciate you taking the time to answer my

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1	questions.
2	Jennifer, that's all I have.
3	DR. RODI: Thank you, Katherine.
4	I have one point that I would like you to
5	maybe elaborate on, and then I'm with regards to a
б	take-off profile, if somebody asked you to describe a
7	corkscrew take-off procedure, would you know what that
8	meant or what that inferred?
9	MR. STOCKHAUSEN: Not on purpose.
10	DR. RODI: Okay. Could you elaborate a
11	little bit more about the maximum performance take-off
12	and how that would look, taking off of the Frisco base.
13	MR. STOCKHAUSEN: Well, from a and I'm
14	speaking from a pilot perspective. The maximum
15	performance take-off, like I described, you should come
16	up what I was always taught was you come up to a
17	hover, check your hover power, check your controls, so
18	make sure everything's working the way it should be,
19	put the aircraft back down on the deck.
20	And then when you're ready to take off, it's
21	a smooth application of collective all the way up to
22	max power, and you hold that as the aircraft comes up.
23	You know, you don't corkscrew. You don't turn. You
24	just come up facing one direction, preferably into the
25	wind, and, you know, you come up to about a hundred

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1	feet or making sure you can clear the highest obstacle
2	in front of you, and then you keep that power in as you
3	start to accelerate and supply forward cyclic.
4	And you do it in such a way that it's
5	gentle, so you don't put enough forward cyclic in that
6	you're going to start a cyclic descent, but you want to
7	start getting air speed, so that you can get through
8	translational up at that hundred feet.
9	And then maintaining that power, maximum
10	performance or your max power, whatever that happens to
11	be, as you accelerate through, you know, 40, 50 knots,
12	then your climb profile should revert to your normal,
13	you know, 500-foot-per-minute. You know, you can
14	reduce power, and fly away.
15	That's how I would perceive or have been
16	taught and taught to do a max performance take-off,
17	particularly at high altitude.
18	DR. RODI: Okay. So with the Frisco base,
19	as I'm sure you're aware, you've got the hospital off
20	to the east.
21	MR. STOCKHAUSEN: Uh-huh.
22	DR. RODI: You've got mountainous terrain
23	off to the south, and then the helipad hangar off to
24	the west, so basically the only departure direction is
25	off to the north.
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1	MR. STOCKHAUSEN: Uh-huh.
2	DR. RODI: How would you then take that kind
3	of boxed environment and do the maximum performance
4	take-off that you just described?
5	MR. STOCKHAUSEN: Well, again, the same
6	process, and you try to get into the wind as much as
7	you can. You know, you don't want to do it with a
8	tailwind. If I remember the pad directly, I mean, I
9	would you always want to try to avoid over-flying
10	any kind of structure. But I don't believe the
11	mountains were high and, I mean, you could take off
12	and do that take-off, where you could get into a normal
13	climb-out profile, and then turn one direction or the
14	other if you had to, to avoid obviously the mountain
15	or, you know, the structures on the ground.
16	So, you know, as much as possible, if it's a
17	quartering headwind, you know, those kind of things,
18	that's acceptable. But as much as possible, you want
19	to try to get into the wind. Tail rotor and any kind
20	of tailwind is going to affect the effectiveness of
21	your tail rotor and, you know, obviously your ability
22	to, you know, climb out with the available power, so
23	DR. RODI: Excellent. Thank you.
24	MR. STOCKHAUSEN: Sure.
25	DR. RODI: Anything else that you would like
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1	to discuss or you think that is important to mention
2	regarding this accident?
3	MR. STOCKHAUSEN: Off the top of my head,
4	Jennifer, I think we've covered it pretty well.
5	DR. RODI: Excellent. Anything regarding
б	Air Methods specifically that you think is important to
7	mention or that we have not discussed?
8	MR. STOCKHAUSEN: Well, I will say that my
9	replacement you know, they hired a fellow a month or
10	so ago I think it's Mark Rambus [phonetic]. The
11	reporting structure has now gone reverted back to
12	the CEO for that position, so I think that's a good
13	thing. It's a good move on their part, so
14	DR. RODI: Excellent. Well, I really
15	appreciate you taking the time to chat with us today.
16	MR. STOCKHAUSEN: Sure.
17	DR. RODI: And we will obviously stay in
18	touch, and it will be known how the direction of this
19	investigation continues and when the report and the
20	probable cause become public, so
21	MR. STOCKHAUSEN: Okay. I appreciate it.
22	DR. RODI: if you have any questions, if
23	you think of anything else, you have my contact
24	information. Don't hesitate to reach out to me. Give
25	me a call or send me an email.

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1	MR. STOCKHAUSEN: Okay. Will do.
2	DR. RODI: Thank you very much.
3	MR. STOCKHAUSEN: Thanks.
4	DR. RODI: Thank you, Katherine.
5	DR. WILSON: Thank you.
6	(Whereupon, at 10:35 a.m., the interview was
7	concluded.)
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## CERTIFICATE

MATTER: The Aircraft Accident that Occurred in Frisco, CO July 3, 2015 Accident No. CEN15MA290 Interview of Edward Stockhausen

DATE: 04-27-16

I hereby certify that the attached transcription of page 1 to 66 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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