### UNITED STATES OF AMERICA

### NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:

\*

AIR METHODS CORPORATION

LIFENET HELICOPTER ACCIDENT \* Docket No.: CEN11FA599

AUGUST 26, 2011
NEAR MOSBY, MISSOURI

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Interview of: DENNIS McCALL

Air Methods Corporation 7301 South Peoria Englewood, Colorado

Thursday, December 8, 2011

The above-captioned matter convened, pursuant to notice.

BEFORE: MALCOLM BRENNER, Ph.D.

Senior Human Performance Investigator

#### **APPEARANCES:**

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## 1 INTERVIEW

- 2 INTERVIEW OF DENNIS McCALL
- 3 BY DR. BRENNER:
- Q. Dennis, what's your full name, just for the record?
- 5 A. Dennis Ralph McCall.
- 6 Q. Okay. And what's your title here?
- 7 A. Chief pilot.
- 8 Q. And how long have you been working for the company?
- 9 A. Since 2003.
- 10 Q. And what's your background, just briefly, in aviation?
- 11 A. Briefly, my aviation background is I started with Air
- 12 Methods in 2003 as a pilot out in California --
- 13 Q. Oh.
- 14 A. -- flying at one of the Mohave Bases. I quickly moved
- 15 into the lead pilot position. From there, I moved to a
- 16 Victorville base, where I was the aviation manager for the area.
- 17 In 2006, opportunity came up here in Denver to move over here, so
- 18 I came up as the compliance manager and that position was --
- 19 because of the operational control issues that came out of the '06
- 20 NTSB hearings and complying with the --
- 21 O. I see.
- 22 A. -- the checklist and, of course, out of that, came the
- 23 operational control center that I was involved in to develop that
- 24 to what it is. Before that, before I was with Air Methods, I flew
- 25 law enforcement in California for 11 years, and before that, was a

- 1 flight instructor. I've been flying since 1987.
- 2 Q. Are you fixed wing or rotor or --
- 3 A. Rotor.
- 4 Q. How many hours have you got?
- 5 A. A little over 14,000.
- 6 Q. My God. How much of that's in EMS?
- 7 A. The last 6 years; probably 1,000 hours of it.
- 8 Q. Did you know the accident pilot?
- 9 A. No.
- 10 Q. How are his credentials compared to other pilots? How
- 11 does he look?
- 12 A. Looked fine.
- 13 Q. Anything special stands out about his background or
- 14 his --
- 15 A. Can you be specific about that? I'm not sure what
- 16 you're asking me.
- 17 Q. Well, just, I mean, just how would you rate him as a,
- 18 you know, as a new candidate coming into the company? How does
- 19 he --
- 20 A. Oh.
- Q. What was striking about him?
- 22 A. There was nothing striking about him and nothing unique
- 23 or --
- Q. Um-hum. Why did he transfer to South Dakota?
- 25 A. I wasn't involved in the transfer. I don't know why he

- 1 -- that wouldn't come to my level.
- Q. I see. And why was he working both bases? Does that
- 3 come to your level?
- 4 A. No. I don't get involved in the scheduling. With as
- 5 many pilots -- we have 1,000 pilots and it'd be impossible for me
- 6 to do that. I do know that a lot of pilots like overtime and it's
- 7 made available to them through the collective bargaining
- 8 agreement. It's spelled out exactly how that gets offered and who
- 9 can claim it and those type of things.
- 10 Q. I see. What are your responsibilities? Just briefly,
- 11 if you could.
- 12 A. The key responsibility is making sure that my pilots are
- 13 trained, that we're compliant with the regulations. I staff a
- 14 training department. I'm responsible for the standardization of
- 15 that training and I have a pretty good cadre of about 66
- 16 instructors that I manage, as well as writing the general
- 17 operations manual. I have input into that. But my primary focus
- 18 is on training of our pilots.
- 19 Q. And do you know in his case, had he received any
- 20 discipline, any commendations?
- 21 A. I don't know the answer to either of the questions.
- 22 Q. Okay. We'll find it at a different level. In terms of
- 23 policy, how does a pilot determine the fuel state when he receives
- 24 an aircraft?
- 25 A. You would do that during the preflight and that would be

- 1 determined by looking at the fuel gauge to see what's in there.
- 2 And in some aircraft, it's possible to visually verify what the
- 3 fuel is.
- 4 O. Um-hum. Is that a checklist item?
- 5 A. Yes.
- 6 Q. Is there a written record of that? What do you do?
- 7 A. Only that he -- there was the daily flight log where
- 8 they would sign off that they completed the preflight for the day
- 9 according to the regulations, and part of that is the preflight
- 10 planning, which means you have the fuel to conduct whatever
- 11 operation you've been given or offered to you.
- 12 Q. Now, in this case, the pilot had not signed off the
- 13 daily log. Why is that?
- 14 A. Don't know.
- 15 Q. Why was that? Okay. But it would have been normal to
- 16 sign it at the time or kind of --
- 17 A. It would have been.
- 18 Q. Okay. So -- okay. Then when you start a mission, how
- 19 do you determine the fuel state?
- 20 A. When you're offered the mission, you have an idea -- you
- 21 know where it's at, of course, and you know there's normally some
- 22 type of standard fuel load -- it differs from base to base -- of
- 23 what they know they need for their normal operating area. So the
- 24 first thing you determine, is this within my normal operating
- 25 area, and if it is, then the fuel, the mission fuel that you

- 1 normally put in the aircraft and verified earlier should be
- 2 sufficient. If not, you put more fuel on. But you always -- you
- 3 know, that's -- you always plan the flight to have -- to be able
- 4 to complete the entire flight and still have 20 minutes of fuel
- 5 remaining in the aircraft.
- 6 Q. Now, I think the policy at St. Joe's was to -- 70
- 7 percent fuel load for their missions. So is that -- and is that
- 8 something that's written down or something that's word of mouth or
- 9 procedures? How do you know that? How --
- 10 A. That would be local information shared amongst the
- 11 pilots at the base. And I've heard that 70 percent number at
- 12 other bases for flying AS-350, so I'm not surprised by that.
- 13 Q. I did have a question. Now, he did have an aircraft
- 14 that was the principal aircraft in the morning, and that was -- to
- 15 our knowledge, that was totally ready to go and prepared, but then
- 16 he was advised when he came on duty that there was another
- 17 aircraft that may be coming on later that was going into
- 18 maintenance, which was the accident aircraft and did come on
- 19 later, and that that aircraft was low on fuel. We're told that he
- 20 was briefed on that. Would it have been appropriate at that time
- 21 to go out and fuel it?
- 22 A. Just going by if what you say is accurate, and I don't
- 23 know that it is --
- Q. Yeah, uh-huh.
- 25 A. -- yes.

- Q. Okay. And other than that, I guess, then in the mid-
- 2 afternoon, the aircraft came out of maintenance and they had to
- 3 convert over for the mission.
- 4 A. Right. I learned that from the investigation.
- 5 Q. Okay. I'm just trying to find out, you know -- so if I
- 6 understand correctly, the procedure would have been then at that
- 7 point certainly to check the fuel state. He's now taking on a new
- 8 aircraft. Is that correct?
- 9 A. Yes.
- 10 Q. All right.
- 11 A. You would preflight the other aircraft. You know, it's
- 12 not uncommon. What you've described is -- and I ran into this
- 13 typically. There's two reasons you could have a couple of
- 14 aircraft at the same base. One is that your aircraft's in
- 15 maintenance and they keep your base in service by providing you
- 16 another aircraft. The other times, it could be they're parking
- 17 one there. They're just -- a place to store it, and you might get
- 18 asked to move it.
- 19 So the guidance is if you have another -- you treat each
- 20 aircraft as a brand new aircraft. In other words, you come in and
- 21 you take your duty aircraft, get that ready, do all the checks.
- 22 And if they put you in another one, you start all over again and
- 23 you treat that one just like the first flight of the day and you
- 24 do all preflight action on that one as well.
- 25 Q. Help me out then. We know -- the pilot said -- he got

- 1 to his first destination and he reported back: "I made a mistake.
- 2 I took -- I was thinking of a different aircraft. I don't have as
- 3 much fuel as I thought." How did that happen?
- 4 A. Don't know. I heard the tapes as well --
- 5 Q. Yeah.
- 6 A. -- and that he said -- I think he says that I got
- 7 halfway here and I realized I didn't have the fuel.
- 8 O. Yeah.
- 9 A. And I have no idea what he was thinking.
- 10 Q. Well, let me elaborate as a layman on my side. First, I
- 11 would think that when you accept the aircraft and you know -- you
- 12 would check the fuel at that point. And then when you lift off, I
- 13 think he reports how much fuel he has to the flight follower.
- 14 You're looking at the gauge is the second one. So, it -- as a
- 15 layman, I would think that somehow it slipped up there and that
- 16 only later did he realize what's going on.
- 17 A. Well, that's certainly possible because we know from the
- 18 evidence that he didn't have two hours of fuel on board --
- 19 Q. Yeah.
- 20 A. -- and he acknowledged that when he was talking to the
- 21 communications center. So I don't know why he would have called
- 22 off with two hours of fuel when he only had -- well, I'm not sure
- 23 what he had in there, actually.
- Q. Are the fuel gauges reliable?
- 25 A. I believe so.

- 1 Q. What's the function of the risk assessment that the
- 2 pilot performs before the mission?
- 3 A. The function of that risk assessment is to give the
- 4 pilot a systematic way of identifying risk, things they may not
- 5 have thought about, and to come up with mitigation strategies.
- 6 That's what the goal of that is.
- 7 Q. Well, in his case, I think he came up as a Beta, I
- 8 think, from the tapes.
- 9 A. I think so, B.
- 10 Q. A "B". What's that mean to you?
- 11 A. What a B means is that -- that's a pretty low risk,
- 12 actually. And the B would be if -- different aircraft, new crew.
- 13 There could be several things put in there. Commonly, commonly,
- 14 because of the history of EMS accidents, it's focused around
- 15 weather issues and weather threats. But I think you would find a
- 16 lot of B's, C's.
- 17 O. And what are the high risk areas?
- 18 A. By areas, do you mean locations in the country?
- 19 Q. No. What would be a high -- what would be one that
- 20 would call for strong mitigation attention?
- 21 A. It would be late in the shift and night and weather is
- 22 approaching minimums for our operations. That would be a high-
- 23 risk value, probably up near a D. D is the end of it.
- Q. I see. D is the high.
- 25 A. But a B, for example, if you're -- the FAA has a list

- 1 that tells you where the mountainous terrain is in the country.
- 2 Automatically, if you're in mountainous terrain, you have -- it's
- 3 a B. You start at a B. You can't start at an A.
- 4 Q. I see.
- 5 A. So that B is not uncommon for that reason.
- 6 Q. I see. I think in his case, he may have been new with
- 7 the company or less than a year with the company, new with that
- 8 aircraft, new to the area, I believe.
- 9 A. He was new to the company. I think he'd been less than
- 10 a year. That's true.
- 11 Q. At St. Joseph's less than a year, and, I think, the
- 12 A-Star less than a year as well.
- 13 A. Less than a year in A-Star as well.
- 14 O. So --
- 15 A. I think he had -- and it was over 100 hours in the
- 16 aircraft, 100 -- maybe 130 comes to mind, 134, and over a
- 17 relatively short period of time, I wouldn't consider that -- I'd
- 18 consider that good, actually.
- 19 Q. Okay, good. How do you promote a safety culture that
- 20 encourages pilots to accept only the flight requests that they can
- 21 do safely, prudently, and legally, and to turn down those they
- 22 cannot?
- 23 A. You just used a phrase almost verbatim that we use in
- 24 our basic indoc to our pilots. And if you were here on Tuesday,
- 25 we had -- the director of operations and myself, we address every

- 1 single new hire pilot, every one of them. And during that 4
- 2 hours, this is exactly what we talk about, and we tell them you
- 3 have to meet three conditions: It has to be safe, legal, and
- 4 prudent, and we give them numerous examples of what that means and
- 5 what they can do to mitigate, that there's no one flight that we
- 6 need to take so bad that you need to go. We don't push weather.
- 7 We don't take risks. We don't fly on every aircraft. And that's
- 8 what they get from us.
- 9 Q. Uh-huh. And you said it's a 4-hour segment in the basic
- 10 indoctrination?
- 11 A. Yes.
- 12 Q. Okay.
- 13 A. We bring them all here for basic indoc.
- Q. Could you give me a couple of examples?
- 15 A. Of?
- 16 Q. Using the class.
- 17 A. Yes. We talk about -- we have an example. There was an
- 18 accident we had in Tupelo, Mississippi and the pilot -- and this
- 19 was a sage pilot. He's been around for a long time. Matter of
- 20 fact, he's to the point of approaching retirement age. He is well
- 21 liked. He's well placed in the community. He has a church. I
- 22 mean, that's all the things that -- nothing unusual. Everyone
- 23 loved this guy. Never even scratched the paint on the aircraft.
- 24 He goes out to do a scene call and he lands and he's
- 25 kind of landed in a culvert. Culvert's my word for it, but it's a

- 1 ditch in the ground, sort of. While they're bringing the patient
- 2 up, they crack the chin bubble on the aircraft. Well, the point
- 3 there is the aircraft became unairworthy. You don't fly it.
- 4 Well, he made the right decision. He grounded the aircraft. The
- 5 patient went by ground ambulance and he waited for the mechanic to
- 6 come and fix the aircraft.
- 7 The mechanic came. They can do a simple repair in the
- 8 field. Did the proper paperwork, but now some weather had moved
- 9 in. The weather was getting bad. And we couched this in how to
- 10 handle self-induced pressure, not external pressure, but the ones
- 11 that the pilots put on themselves. So the mechanic leaves and the
- 12 pilot is there and a state patrol comes up and notices what's
- 13 going on. He looks at the weather and advises the pilot that, you
- 14 know, if it rains, right where that aircraft is, it's going to
- 15 flood. The aircraft's probably going to go under water.
- So the pilot starts thinking about this because -- we
- 17 know some of this because he talked to the mechanic. He called
- 18 him and said, hey, here's what I'm going to do. It's going to
- 19 flood right here. There's a school down the road I can get to, I
- 20 think. I'm going to go up and take a look and, if I can, I'm
- 21 going to fly over there and put the aircraft in that field.
- 22 He doesn't make it. He takes off and gets into the
- 23 clouds and goes inverted and kills himself. That's -- so that's
- 24 one of the examples. And it takes a little bit longer than that
- 25 in the class because --

- 1 Q. Sure.
- A. But we're trying to show that this a sage pilot. This
- 3 is someone that's been around block, not -- shouldn't be subject
- 4 to this, has turned down and flights and --
- 5 Q. He made a good decision earlier.
- 6 A. Right.
- 7 Q. Yeah. Is there a written policy that supports this?
- 8 A. Our safety management system does. Yeah, our safety --
- 9 Q. There is written guidance to the pilots?
- 10 A. That tells them to be safe or to --
- 11 Q. Yeah. Or -- well, yeah, I guess that follows up on the
- 12 kinds of material you talk about in those 4 hours: safety,
- 13 prudent, and legal. Is there --
- 14 A. There's -- I don't know if I'll characterize it as
- 15 policy. It's a theme and it's the culture we're trying to push.
- 16 We have documents we put out, like a safety connect, where we put
- 17 the "There I was" stories. We are continually sharing information
- 18 we get from AIDMORs. That's a reporting system we have from the
- 19 field where the pilots -- the medical crews can send us
- 20 information concerns. So it's put out that way.
- 21 Q. The St. Joe's ferry has become very competitive in
- 22 recent years. How do you mitigate competitive pressures, let's
- 23 say?
- A. It's out of my sphere of influence. I don't mitigate.
- 25 I've been at bases like that and, you know, I tried to stay out of

- 1 those kind of politics and so on.
- 2 Q. I see.
- 3 A. I just came to fly the helicopter.
- 4 Q. If a pilot has to make a launch decision and wants
- 5 counsel on a -- it's a difficult decision, who do they contact?
- 6 What's the procedure?
- 7 A. The procedure, and they're taught this as well in the
- 8 basic indoc, is you call up your chain of command and you keep
- 9 calling all the way up to the director of operations office, and
- 10 then we tell them in the basic indoc class, we say and if that
- 11 doesn't work, you call Aaron Todd. Call somebody.
- But the OCC is -- that's our safety net. You can call
- 13 them, and we tell them in this class and we put this in our
- 14 General Operations Manual, we post their number and say that that
- 15 should be your first call. They can get a hold of any of us and
- 16 they often do.
- 17 O. Okay. So the procedure would be call the OCC first.
- 18 Would you discuss it with OCC or be referred or --
- 19 A. You would discuss it with the OCC.
- Q. Okay. And then you'd work up your chain of command. So
- 21 I guess it'd be the lead pilot and then the, I guess, the area.
- 22 A. They have the option of calling the lead. I know that
- 23 some people call the lead pilots. That's fine too. It's good
- 24 that they're getting a second opinion on what they're -- you know,
- 25 instead of trying to make a decision if they're having trouble

- 1 with it by themselves. So, sure, you call and get a second
- 2 opinion. It could be the lead. Then the next logical would be
- 3 the area aviation manager, if we're going strictly by the
- 4 communication lines; then the regional aviation director. Then it
- 5 will go up to me. If they don't like my answer, they could go to
- 6 the director of ops. But we tell them, for convenience, and we --
- 7 and all of the satellite phones an the aircraft, we have the OCC
- 8 as either the first choice or second choice to make a phone call.
- 9 Q. Yeah.
- 10 A. One of them is LifeCom or the other one is us. You --
- 11 either way, you're going to get to somebody.
- 12 Q. And there's written guidance that they got?
- 13 A. Call the OC --
- 14 Q. Yeah.
- 15 A. There is a lot of OCC guidance that tells what services
- 16 we provide, as well as they're given that presentation at basic
- 17 indoc.
- 18 Q. How often do the pilots call OCC for --
- 19 A. I'd have to defer to Leah. But I can tell you just from
- 20 my experience, how often do I get called? I probably get called
- 21 every day.
- 22 Q. Okay.
- 23 A. Okay.
- Q. What kind of things?
- 25 A. It can be things -- one of them that comes to mind is

- 1 one of our aircraft had made a precautionary landing at an
- 2 airport. I think it was in -- it was, I think, in Tennessee area.
- 3 But what had happened was when he made this emergency landing, he
- 4 was partially blocking an active runway. So the aircraft is
- 5 unairworthy at that point and the call was to ask me: I've got an
- 6 airport manager that says I have to move this aircraft. And I
- 7 told him, no, absolutely not; you can't move that aircraft. It's
- 8 unairworthy. Leave it right there. And he said, well, they're
- 9 going to put a chain on it and they're going to tow it out of here
- 10 if I don't do it. And I said, well, explain to them that, you
- 11 know, we can't for these reasons and that, you know, they'll be
- 12 responsible for our aircraft.
- So that's the kind of thing I get. Some of them are
- 14 pilots just have a question about, hey, could -- mom wants to ride
- 15 in the helicopter with the baby, is that okay? Sure. You know,
- 16 those type of things.
- 17 Q. How often do you get questions concerning fuel, fuel
- 18 issues?
- 19 A. I don't ever recall getting a question on fuel.
- 20 O. Why is the operation -- the OCC here and not in Omaha or
- 21 vice-versa? Why don't you bring those guys here? Why aren't they
- 22 co-located?
- 23 A. That makes for a good debate. And I'll tell you the
- 24 reason why we chose to have it here. We participated in the
- 25 advisory circular that came out, since we were in the front of all

- 1 this, and the four tiers that it takes, the different levels of
- 2 operational control from a small operator, a few aircraft, all the
- 3 way up to a larger operator. We thought it was important that we
- 4 have them here because they have immediate access to chief pilot,
- 5 DO, all the executives. And it's not unusual, the phone just
- 6 rings real quick and -- you know what, and I can't even think of
- 7 any real specifics, but it rings a couple times a day. You pick
- 8 it up, and it's the OCC: Hey, we've got this going on, just want
- 9 to let you know. As well as our equipment is so important to us,
- 10 we have our IT staff here. They can immediately respond to
- 11 problems we have, if we have any.
- 12 Q. Why not bring Omaha here?
- 13 A. I'm not against that.
- 14 Q. Is there an advantage of co-locating them?
- 15 A. They're different function. I'll tell you what the
- 16 quidance says, what the information out there says. If you put
- 17 them together, then you have the flight followers and the
- 18 operational control, the flight monitor sitting in the same place
- 19 and that -- the idea is that they would be -- OCC would kind of be
- 20 the supervisor of the communicators and they would have this
- 21 little node that would interact with each other. We also realize
- 22 that that would put all those employees under one manager and it
- 23 would take away what I'm doing, which is --
- Q. From the independence.
- 25 A. The independence of it, exactly. I think that's

- 1 important because there's -- we have the huge compliance part
- 2 where we also oversee and monitor all the communication centers to
- 3 make sure they're doing what they're supposed to be doing,
- 4 entering flight plans, giving us updates, and those type -- that
- 5 type of information.
- 6 Q. And also, in the advisory circular, they talk about OCC
- 7 sharing the operational control. They talk about -- I have a
- 8 comment, I believe it's the effect that especially if, for
- 9 example, the risk assessment reaches a certain level that they
- 10 share the decision in terms of launching or they routinely have a
- 11 second person with responsibility over it. Can you --
- 12 A. Yeah.
- 13 Q. -- is there a question or what's the thinking? Please
- 14 disregard --
- UNIDENTIFIED SPEAKER: That's kind of hard to answer.
- 16 MR. McCALL: What I understanding you're asking is do we
- 17 have a -- does the OCC -- why is our OCC not involved or have the
- 18 ability to stop a flight?
- 19 BY DR. BRENNER:
- 20 Q. Advisory as opposed to -- yes, consulting or having
- 21 responsibility.
- 22 A. When we down the operational control path for the
- 23 pilots, it was important -- and we set up a two-tier system, we
- 24 tried to follow the guidance that's in A008, which is the
- 25 operation specification, and give the pilots that tier 2

- 1 operational control. We need them to be the decision maker. The
- 2 reason we do is, just as it's important that the OCC is back here
- 3 and they're away from it, they don't have any type of operational
- 4 pressures, that pilot's the one that's right there looking. There
- 5 are times when we might see weather that looks bad to us, but the
- 6 pilot in the field --
- Q. Sure.
- 8 A. -- I've been on both sides of this --
- 9 Q. Sure.
- 10 A. -- it's not. And so, we don't want to make a gray area
- 11 for the pilot. Do I -- who's initiating this flight, me or them
- 12 or us? So our decision right now is that we keep that decision at
- 13 the pilot level. The expert makes the decision ultimately. We
- 14 provide him with the information and the tools to make the
- 15 decision.
- 16 Q. I understand in terms of weather, surely, the local
- 17 person has an advantage because they can see what the conditions
- 18 are. But from a layman's viewpoint, looking at this accident, it
- 19 looks as if here's a case where the pilot is calling in and asking
- 20 for guidance from someone who can help him out and basically says
- 21 I made a mistake, what do I do now? Do I, you know -- and flight
- 22 following couldn't do it. OCC, in principle, maybe could have.
- 23 So, to me, I could see a recommendation, for example, that OCC
- 24 should have more responsibility or should share it or have some
- 25 sort of more of a second role, a second opinion sort of role with

- 1 more -- would that be a fair recommendation?
- 2 A. Yes.
- 3 Q. Why is that?
- 4 A. Well, why that's a fair recommendation is because what
- 5 we need is the complete communication loop. And the OCC, while
- 6 they don't have the ability to tell somebody no, they can get a
- 7 hold of someone that can tell them no. That does happen.
- 8 Example. We have in our GOM that if you're requested to
- 9 do any type of a search and rescue flight that you have to call
- 10 the OCC. And also, it says in there we don't do search and
- 11 rescue. So that would be -- that's probably one that we get
- 12 frequently is the pilot is being offered a flight and can't make
- 13 the determination whether it's a search and rescue, does this
- 14 qualify and can we do this? The OCC will listen to that and say
- 15 hang on one second, and connect them to me or call me at home,
- 16 call one of us at home --
- 17 O. Yeah.
- 18 A. -- and we will make a decision, no. Or, I've had a few
- 19 times where they've come into my office and said would you come,
- 20 please, to look at this aircraft? It looks like he's heading into
- 21 some really bad weather. And we've called him and we've told him.
- 22 So I go in there and I look, and then I made the decision, okay,
- 23 tell them, per the chief, the mission's terminated.
- Q. Exactly. Someone who can say no, exactly. Yeah.
- 25 A. Yes. So --

- 1 Q. And that's -- yeah.
- 2 A. -- I think in a round about way, Malcolm, we do that.
- 3 It's just it's not the OCC. They're just sort of the conduits of
- 4 the information to get it to us.
- Q. And I guess in this case, it's sad that both the pilot
- 6 and the flight follower, that neither one of them went into that
- 7 situation. It's a case where they both understood, they're both
- 8 trying to do the best they can, but it needed someone to come in
- 9 from the outside view. What can we do to prevent that in the
- 10 future? I don't know.
- 11 A. What could you do?
- 12 Q. Yeah.
- 13 A. I mean, I'll address this as like a global issue. A
- 14 communicator would need sort of a triage type of a checklist they
- 15 could use and say if this is anything but this, the question's
- 16 anything but this, this, or this, you know, reference the flight
- 17 following, then we just hand it off to whatever it is. If they
- 18 don't have an OCC, it goes up to the certificate management or
- 19 local management. If you have an OCC, then you could send it up
- 20 there.
- 21 O. Yeah.
- 22 A. I'm considering those things, obviously.
- Q. Have there been changes to procedures since this
- 24 accident, as a result of this accident?
- 25 A. Yes, there's been a couple. One of them is that we've,

- 1 through the communications center in Omaha, we've talked to their
- 2 management and they're teaching their people. They also
- 3 participate in our safety management system. So, on our monthly
- 4 meeting, they sit right there and we're all in this big room
- 5 together and we talked about that and said, look, anything out of
- 6 the ordinary has to be funneled through the OCC. We have to keep
- 7 that line open. It's -- just do it. We're on the same phone
- 8 system. You can transfer the call. And that's -- hindsight's
- 9 20/20.
- 10 Q. Well, I'll tell you, that's how we learn from it.
- In terms of company policy and likely discipline, I'd
- 12 appreciate your thoughts on it. From the pilot's viewpoint, if he
- 13 had reported that he had low fuel at that point, I made a mistake,
- 14 and stopped the flight, what would have been the company's
- 15 response?
- 16 A. It would have been an attaboy. Probably would have got
- 17 a trip out to talk to me, got some more training, but that would
- 18 have been more of -- it would have been an attaboy.
- 19 Q. Okay. What if he stopped for fuel with the passenger,
- 20 then completed the flight, what would have been the company
- 21 response?
- 22 A. It depends on what I knew about it. If I knew that it
- 23 was a critical fuel situation -- well, the response is it's -- we
- 24 allow for that. We understand. It's rare, but we have written
- 25 guidance in our GOM that tells you how to do that function. And

- 1 that's --
- Q. How to refuel with the passenger?
- A. Absolutely. And we do that. So we don't take that away
- 4 from them. That's a tool in the toolbox and it gets used.
- 5 Q. How often do pilots stop to refuel with passengers?
- 6 A. I couldn't give you an exact number, but I would say
- 7 it's not frequent, but it's not an anomaly when it happens. I
- 8 personally have done it myself when I was flying the line.
- 9 Q. What was the occasion?
- 10 A. I typically had long legs where I flew, long mileage
- 11 where I -- we would go out to some pretty remote areas in the
- 12 California deserts, maybe have a 120-nautical mile leg coming
- 13 back. Winds picked up. You know, you took off and you picked up
- 14 a 40-knot headwind. That changed things. But the contingency was
- 15 already planned before I left my base, and so we would have fuel
- 16 waiting for us somewhere, and then I would change the flight plan
- 17 and say I'm stopping here for fuel.
- 18 Q. Um-hum, sure. If he delivered the passenger and then
- 19 stayed at the hospital for a fuel truck to come to refuel then,
- 20 had not refueled on the way, what would the company response have
- 21 been?
- 22 A. Now, being the chief pilot -- and I can speak directly
- 23 to this -- if you made bad mistakes and then you eventually make a
- 24 good choice, that good choice is going to save you. There's -- it
- 25 boils down to training. It boils down to going back and saying,

- 1 okay, was there a failure in the training? Is there something we
- 2 didn't cover well enough? Let's go back and figure out what
- 3 happened here and make sure it doesn't happen again.
- 4 Q. If he autorotated with the passenger -- ran out fuel and
- 5 autorotated successfully, what would have been the company
- 6 response?
- 7 A. He would have gotten training. And again, we -- well, I
- 8 had a guy over the weekend who was flying and he was going to pick
- 9 up the patient, landed in the desert, and struck his -- the tail,
- 10 damaged the aircraft. There's nothing going to happen to him
- 11 other than the fact that we're going to do a little bit of a
- 12 training on him. The aircraft got some damage, but, nevertheless,
- 13 it wasn't intentional. So there's a lot of things you have to
- 14 look at. And I -- you're giving me a for instance --
- 15 Q. Yeah.
- 16 A. -- and so --
- 17 Q. I'm trying to get a sense.
- 18 A. -- I'm really not comfortable speculating on what I
- 19 would do because it's all really as a case-by-case basis. But I
- 20 truly believe in the just culture, whether things were
- 21 intentional, would another person in the same position have done
- 22 the same thing and got themselves -- I really look at all that.
- Q. Okay. Compared to industry standards, how is pilot pay?
- A. We're in the top 75 percent.
- Q. How's pilot morale?

- 1 A. I believe it's good.
- 2 O. How about the schedules?
- 3 A. The pilot schedules?
- 4 Q. Pilot schedules, yeah.
- 5 A. The pilot schedules -- I'm not sure if I know what
- 6 you're asking. Are -- do they -- are you asking if the pilots
- 7 like the schedules?
- 8 O. Yeah.
- 9 A. They come up with the schedules.
- 10 Q. Oh.
- 11 A. So, yes, I think they like them. That's part of their
- 12 collective bargaining agreement is that they will determine days
- 13 on, days off, and that type of thing --
- 14 O. I see.
- 15 A. -- with input from the company, of course.
- 16 Q. How are relations with the pilots you know?
- 17 A. Well.
- 18 Q. How's the size of the workforce compared to the workload
- 19 that has to be performed for the pilots side?
- 20 A. I think it's manageable. You said the pilots --
- 21 Q. Yeah.
- 22 A. -- or management to the workforce?
- Q. No, in terms of workforce, pilot workforce to pilot
- 24 workload. Do you have enough pilots for the system or --
- 25 A. I always want more, but I do believe we have enough.

- 1 Q. How's the turnover rate of pilots?
- 2 A. That's a question better for Mr. Bassett, but --
- 3 Q. Sure.
- 4 A. -- I would say that it's -- I don't know what the number
- 5 is. I'd have to guess on that. I think it's normal for this
- 6 industry. Every month we have a basic indoc and there's people
- 7 sitting in it. So we're always hiring people. We do have some
- 8 vacancies out there, some open positions, and that's based on --
- 9 most of that comes from pilots on military leave. We hold their
- 10 positions for them until they come back, and there's quite a few.
- 11 We have a lot of military pilots and they've been a great asset to
- 12 the country, so they use them elsewhere.
- 13 Q. How's the turnover rate of managers?
- 14 A. It's low.
- 15 Q. How's the quality of new hires?
- 16 A. They're good. We have a -- we get a lot of choices and
- 17 we pick a few. So it's -- there's a lot of people to pick from,
- 18 but there's just not -- we're kind of picky. We think we do a
- 19 good job in who we pick and how we vet people out. Not anybody
- 20 can come. Our, you know, minimums are right up there with
- 21 everybody else's.
- The influx of the military pilots that used to be out
- 23 there, you don't have it anymore, so, pretty much, everybody's
- 24 coming from tour operators and those type of things. I'm not
- 25 saying any one is any better than the other, it's just that it's

- 1 something I've noticed is that the options between military and
- 2 civilian trained is -- it's dwindling; very few guys.
- Q. What are the strengths of the military pilots?
- 4 A. I believe -- you know, this is a -- I'm only smiling
- 5 because it's a -- I'm not a military pilot. The other guy is.
- 6 And so we will play little games with them. During the pilot
- 7 interview we'll ask them: So you're military trained? I'll ask
- 8 you that question, so what's better? And, of course, whatever you
- 9 are is what's better, for the reasons.
- The military pilot, I think the strengths are they're
- 11 regimented on how they do things. They are -- they're pretty much
- 12 they're good aviators or they wouldn't be there; the military
- 13 would have gotten rid of them. So I feel a little bit comfortable
- 14 knowing that they've been vetted and done complex missions before.
- 15 Q. What are the advantages of the civilian pilots?
- 16 A. The FAA operating in this regulatory environment is -- I
- 17 think, is big. As well as -- small distinction on how it
- 18 important it is, is a guy that's flown civilian has always been by
- 19 themselves in the cockpit and is used to making all those
- 20 decisions by themselves and I find that, at times, that's a little
- 21 more helpful.
- 22 Q. Uh-huh. What's special about the company?
- 23 A. There's a lot I like about Air Methods, starting with I
- 24 really truly like their attitude towards safety, their equipment,
- 25 being innovative. And I'll break those down real quick, is I

- 1 wouldn't go work for a company -- when I was leaving my -- a
- 2 previous job to come to Air Methods, safety was important. I
- 3 always saw their aircraft flying around. I flew with them. They
- 4 were in good shape. Their pilots seemed to be really -- very well
- 5 trained, and you want to be part of something like that. And then
- 6 once I got up here and got into the -- this management level with
- 7 Aaron Todd, from Paul Tate all the way down through the line, they
- 8 truly do support safety. A lot of money has been spent. Anybody
- 9 -- everybody says safety is their number one priority. Nobody
- 10 would say it's number two. So you can expect that from anybody,
- 11 but I think they've put their money where their mouth is.
- 12 Again, there's no financial advantage to opening an
- 13 operational control center and putting eight people and spending a
- 14 half-million dollars on software when it's not required. There
- 15 was no financial incentive to putting TAWS in our aircraft, NTSB
- 16 recommendation. To NVGs, we're almost 100 percent NVGs. We've
- 17 been marching ahead doing all these things and that continued
- 18 support is still there.
- 19 Now we've taken on the safety management system, which
- 20 I'll tell you is a huge endeavor. It's huge. And we've exited
- 21 Level 2 and we hope to exit at Level 3, which means we're in the
- 22 reactive stage -- I mean, excuse me, the proactive stage and able
- 23 to start having very positive effects on our flight operations.
- 24 Q. And Mr. Todd, what -- can you give examples of his
- 25 attitude towards safety?

- 1 A. I've sat across from him at meetings before when they're
- 2 trying to make decisions about spending money and Aaron is quick
- 3 to say if it's safer, if it's the right way to go, we'll do it,
- 4 and he has. He led -- Aaron personally led the effort to add all
- 5 that specialized equipment to the aircraft. There's a lot more
- 6 too. I mean, weather, we've got XM radio weather on the aircraft.
- 7 We fly good equipment, a lot of new equipment. We order 25
- 8 aircraft a year, so it's --
- 9 Q. All right. How would you characterize the competitive
- 10 environment of this industry?
- 11 A. I think it's very competitive.
- 12 Q. Has it gotten more competitive or less competitive?
- 13 A. I think it's sort of flattened, is what I think. Where
- 14 there was a huge expansion over the, you know, 10-year period
- 15 where everybody was getting into it and, you know, you could --
- 16 there was helicopters facing each other at the airport, truly.
- 17 Arizona is a great example of how many EMS helicopters. But I
- 18 think that because of the economy downturn, the weaker companies
- 19 have moved, taken their aircraft back out and are doing other
- 20 things now and there's a little bit of downsizing. And think that
- 21 that's what we're seeing too. We're really no positive growth
- 22 other than acquisition of Omni. We've stayed pretty flat.
- Q. With Mr. Todd, the CEO, what are his strengths?
- A. Comprehension of issues, big picture. He's obviously
- 25 very good with the financials for the company. And I think he, as

- 1 a leader -- and again, I keep going back to our SMS system which
- 2 he's a part of. He's a part of a lot of the safety committees we
- 3 have and so on and puts his time and effort into them as well.
- 4 Q. How much contact do the line employees have with him?
- 5 A. I wouldn't think very much. I know Aaron tries to get
- 6 out and he goes in the field, but even for myself, it's -- it'd
- 7 take a long time, just doing the simple mathematics of 305 bases,
- 8 how long it would take me to get to each one of them. But I do
- 9 meet every pilot.
- 10 Q. What's the safety office do?
- 11 A. They're all -- right now, what they're doing is they're
- 12 expanding, expanding exponentially. But they're taking care of a
- 13 lot of our big programs as far as safety initiatives. They are
- 14 the facilitators for our SMS system. They are also overseeing our
- 15 ASAP, MSAP, the Aviation Safety Action Program. They chair those
- 16 and they do them. We have a person they brought on now to start
- 17 doing analyticals of our data to see what we can -- what kind of
- 18 trends we can find out. But they're pretty tightly interwoven
- 19 within the company. I work very well with them. I spend a lot of
- 20 time with the safety people, with Ed and with Michael Koenes, and
- 21 all the rest of them.
- Q. How are relations with the FAA?
- A. Good. I think we have a very positive relationship with
- 24 the Denver FSDO. That's -- when you say FAA, that's what I'm --
- 25 not the same everywhere.

- 1 Q. Can you give me an example?
- 2 A. They also are -- an example of our FAA? Yes. They are
- 3 participating as well in our safety management system and helping
- 4 us develop that and helping us move forward with our technologies
- 5 and innovations and, you know, being a -- they're good advocates
- 6 for us. They're firm, but they're fair. You know, that's -- they
- 7 don't give us stuff, but, you know, we feel like we earned it when
- 8 we get something, but they help us, help us get there.
- 9 O. Now, I wanted to ask about the autorotation and
- 10 autorotation training. Maybe --
- DR. BRENNER: Jim, maybe -- do you want to pick up on
- 12 that?
- 13 MR. SILLIMAN: Yeah.
- 14 BY MR. SILLIMAN:
- 15 Q. Dennis, first of all, the -- you said changes to
- 16 procedures. You said you've made two. One was AirCom, you know,
- 17 trying to just get anything out of the ordinary sent up to OCC.
- 18 So more communication to the OCC, it sounded like. That was what
- 19 I took from your answer there.
- 20 A. Were you looking for an all-inclusive answer to
- 21 everything related to the accident?
- 22 Q. Well, you said you had a second one. What were -- what
- 23 was another thing that you, you mentioned, as far as the change in
- 24 operations?
- 25 A. Well, we've changed the guidance. We have a -- like I

- 1 told you I would do, our training syllabus has changed on how we
- 2 -- what we focus on and more of a forced landing type of attitude
- 3 and talking about getting -- well, I think we're all aware of the
- 4 cyclic back now and how important that is. So that is now our top
- 5 priority in -- when an engine failure is recognized, is that the
- 6 smooth application of how cyclic and collective down
- 7 simultaneously and how important that is for reversing the airflow
- 8 in the rotor system and to train to that standard.
- 9 We also have a GOM revision out waiting to be approved
- 10 right now where we've increased our minimum altitudes en route.
- 11 O. And what are those?
- 12 A. I'd have to go from memory, Jim, but it's -- I believe
- 13 it's 1,000 in day; 1500 night, depending on the ceiling.
- Q. So they can go down to FAA minimums if they need to,
- 15 but --
- 16 A. Right.
- 17 Q. -- typically, you'd fly at the higher altitudes?
- 18 A. Right. And if you look at the country right now, that
- 19 would apply to just about everybody.
- Q. Other changes that you -- that you can think of?
- 21 A. Just that we're, you know, we're considering simulators
- 22 and I really -- I believe that because our director of ops is more
- 23 involved in that directly, that's probably a better question for
- 24 him.
- 25 Q. I had asked -- or Michael Koenes had mentioned to me

- 1 when we were in Grand Prairie about root cause analysis and the
- 2 safety department was working on that, and he said, yeah, sure,
- 3 he'd be able to provide that information and what kind of things
- 4 the safety department or at least you folks have been working on
- 5 as far as root cause analysis and some of the changes. Is that
- 6 available to me or is that something they're still working on or
- 7 something?
- 8 A. I don't know if they would release that or not because
- 9 of some of the --
- MR. McCALL: Do you know?
- 11 UNIDENTIFIED SPEAKER: Well, I think they've got a
- 12 attorney-client privilege on it, but you made that request of
- 13 Crystal Hayne (ph.).
- MR. SILLIMAN: I think it was just through Mike and then
- 15 through -- I think Dan sent an email. I don't I've ever gone
- 16 through Crystal on that.
- 17 UNIDENTIFIED SPEAKER: Well, I thought it did, but --
- 18 MR. SILLIMAN: Maybe not.
- 19 UNIDENTIFIED SPEAKER: -- we'll check with her. We'll
- 20 check with her.
- MR. SILLIMAN: Yeah.
- 22 MR. McCALL: Yeah, because I've had minimal
- 23 participation in that --
- 24 BY MR. SILLIMAN:
- 25 Q. Okay.

- 1 A. -- because of my involvement with the investigation of
- 2 the accident.
- Q. Okay. What -- the changes to the autorotation, maybe
- 4 you can just kind of explain that a bit further. What was
- 5 involved there?
- 6 A. What's involved is making sure that -- well, we've
- 7 already done this. I think there's conflicting stories floating
- 8 around that we never roll the throttle back when we're simulating
- 9 engine failures on the AS-350, and that's not true. If the
- 10 aircraft is configured and allowed by the flight manual -- we have
- 11 B2s that are, B3s, we absolutely do that.
- 12 Q. Um-hum.
- A. So it's not forbidden, but on a couple of the aircraft
- 14 that we have, where it's not permitted, then we don't pull that
- 15 fuel control lever. We don't touch it, as what the fight manual
- 16 says.
- 17 We have made a request to Eurocopter to provide some
- 18 type of modification to where we could do that, we could pull that
- 19 throttle back. But the emphasis item -- and I still believe the
- 20 emphases item should be the initial reaction from a pilot when the
- 21 engine fails. It's the initial reaction that is going to make the
- 22 difference. As you saw, it was 4-1/2 seconds without the
- 23 cyclic --
- Q. Yeah.
- 25 A. -- 25 seconds with it. That buys you a lot of flight

- 1 time.
- Q. And how is that -- I guess you've worked with the POI on
- 3 that, and is that taken care of then or --
- 4 A. It's submitted. I have it -- it's a draft copy. I've
- 5 got it on my desk and it's submitted. It's ready to go.
- 6 Q. Okay.
- 7 A. But we -- it doesn't mean -- we've started implementing.
- 8 We've already got our -- talked to the check airmen that train in
- 9 that aircraft and we've told them what the emphasis item is
- 10 now --
- 11 Q. Okay.
- 12 A. -- that that's important, that you train until that
- 13 pilot instinctively starts back on the cyclic when the engine
- 14 quits in cruise flight.
- 15 Q. And you talked about there being a possibility that the
- 16 -- the mobile simulators, do you have one available here today or
- 17 is it --
- 18 A. We do.
- 19 Q. Okay. So maybe at the end of the day, I could get a
- 20 tour of that and so forth?
- 21 A. Sure.
- 22 Q. Okay. What would it take for the company to decide,
- 23 well, this pilot in this situation did something egregious that we
- 24 really need to, you know, terminate? What kind of situation would
- 25 -- what kind of circumstances or --

- 1 A. Well, if there's --
- Q. -- behavior would say, okay, this is -- that we -- this,
- 3 we can't allow?
- 4 A. One would be willful disregard for FARs, Federal
- 5 Aviation Regulations, and where it impacted the safety of the crew
- 6 and the aircraft and the pilot and, again, it was willful.
- 7 Q. So that would be something that you'd have to analyze
- 8 and try to determine. And when you say just culture, you're --
- 9 that's part of your analysis is, you know, trying to find that
- 10 fine line there?
- 11 A. Yeah. To me, it's an easy line. It's not a fine line.
- 12 There's -- the majority of issues we have do not result in
- 13 termination. I mean, the majority.
- 14 Q. Okay.
- 15 A. The most recent one that the union and I, we just had a
- 16 systems board on last Friday, which is the pilot's ability to
- 17 grieve any type of discipline, and the systems board, comprised of
- 18 the company and the union, met and upheld a recent termination.
- 19 It was for a pilot that took night vision goggles into an aircraft
- 20 that was not configured for night vision goggles and flew flights
- 21 under them. And that came to us from an FAA whistleblower and we
- 22 reacted to it. We had to close the base for 24 hours while we
- 23 figured out what was going on there to see what the issue was.
- 24 And in that guy's case, it wasn't that he did it once; he'd done
- 25 it over a 3-month period many times. So it wasn't I did it once

- 1 and, oh gosh, what an idiot; I should have never -- no ownership.
- 2 So it was willful. He knew what he was doing was wrong, he tried
- 3 to conceal it, and the information came out. So, that rose to
- 4 that level, in my mind, that he couldn't fly for us.
- 5 Q. Uh-huh. You talked about equipment on an aircraft. So
- 6 you're training all your pilots to night vision goggle capability?
- 7 A. Yes. We're at 98 percent right now.
- 8 O. And that's also for the crew in back?
- 9 A. Yes.
- 10 Q. And you also -- and so, all the helicopters are being
- 11 conformed or configured with night vision goggles?
- 12 A. Not all of them. We have some legacy aircraft, and that
- means like a Bell 22, 20-year-old aircraft that we're replacing.
- 14 They will not get configured, and there's a handful of those.
- 15 Q. Okay.
- 16 A. And that 98 percent includes what we got from Omni.
- 17 We're almost done with our own operation, having them all. The
- 18 goal is before 2012 that we can make the statement that we're 100
- 19 percent goggled --
- 20 O. Right.
- 21 A. -- in the company and we're marching down towards that
- 22 road. There's a couple of aircraft, like I said, the legacy ones,
- 23 some old BK-117s, we're not going to modify those.
- Q. How about -- you talked about the TAWS. What kind of
- 25 percentage of aircraft have the TAWS on board now?

- 1 A. I couldn't give you the percentage.
- Q. Well, kind of a sense. Is that where you're -- the
- 3 company's tracking for trying to do that as well?
- A. Well, every new aircraft. So every new aircraft that
- 5 comes out of here has TAWS on it, every single one. You know, one
- of the issues that popped up was we had TAWS on most of the
- 7 aircraft. It was airplane TAWS. We can't use it.
- 8 O. Yeah.
- 9 A. So it was a matter of getting too far ahead of it and
- 10 trying to be proactive and lined up with equipment we couldn't
- 11 use. So when they come in for refurb, they all come out with
- 12 TAWS. When they're brand new, they all come out with TAWS.
- Q. And they're all probably equipped with ILS as well?
- 14 A. IFR? No, the single-engine are not. I mean, they have
- 15 the basic instruments to do it, but they don't have all the
- 16 sophisticated navigational.
- 17 O. Okay.
- 18 A. Although we do use the Garmin 430, 530s. That's part of
- 19 our new installation. That's a pretty sophisticated GPS with TAWS
- 20 in them and has all the approach plates.
- 21 Q. Anything else about this accident that, you know, you
- 22 need to, you know, get your head around still, or is there
- 23 something else that would be helpful for us to know?
- 24 A. No, not from my end. I'm -- I think I was like
- 25 everybody else, Jim, when we first got out there and -- this one,

- 1 some of the pieces went together fast and, I don't know, that's
- 2 what human factor experts, hopefully, can tell us because I can't
- 3 answer those questions.
- 4 MR. SILLIMAN: I don't have anything further.
- DR. BRENNER: Maryam?
- 6 MS. ALLAHYAR: No. Actually, my questions were
- 7 answered.
- 8 BY DR. BRENNER:
- 9 Q. Okay, in terms of willful disregard of FAR, the pilot
- 10 confessed: I made a mistake on fuel. But then when he determined
- 11 that he would go and take off, I think he reported 45 minutes of
- 12 fuel --
- 13 A. I think that's right.
- 0. -- and which, in fact, it didn't have. And it seems to
- 15 me he'd be likely to know that that -- I mean, that is an FAR
- 16 requirement for the recording, but not necessarily what he
- 17 expected in the thing. How would you evaluate his behavior as a
- 18 chief pilot?
- 19 UNIDENTIFIED SPEAKER: Can I talk to you just a second
- 20 about this question?
- DR. BRENNER: Yeah.
- 22 UNIDENTIFIED SPEAKER: I'd rather do it privately, not
- 23 in front of him. I think you would rather have me do it privately
- 24 too.
- DR. BRENNER: Okay. Sure.

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1
               MR. McCALL: Well, I -- okay.
 2
               UNIDENTIFIED SPEAKER: Don't -- just -- don't say
 3
    anything.
 4
               (Off the record.)
 5
               (On the record.)
               (Whereupon, the interview 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: AIR METHODS CORPORATION

LIFENET HELICOPTER ACCIDENT

AUGUST 26, 2011

NEAR MOSBY, MISSOURI

Interview of Dennis McCall

DOCKET NUMBER: CEN11FA599

PLACE: Englewood, CO

DATE: December 8, 2011

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

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Karen M. Galvez Transcriber