

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:

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SIKORSKY S76B HELICOPTER N72EX

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CRASH NEAR CALABASAS, CALIFORNIA,

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ON JANUARY 26, 2020

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Interview of: LUCA DELL'ANESE, Instructor
EuroSafety

Virtual

Wednesday,
February 26, 2020

APPEARANCES:

DUJUAN SEVILLIAN, PhD, Human Performance Investigator
National Transportation Safety Board

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National Transportation Safety Board

MATTHEW RIGSBY, Air Safety Investigation
Federal Aviation Administration

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<u>ITEM</u>	<u>I N D E X</u>	<u>PAGE</u>
Interview of Luca Dell'Anese		
By Dr. Sevillian		6
By Mr. Salazar		15
By Mr. Rigsby		26

I N T E R V I E W

(1:01 p.m.)

DR. SEVILLIAN: We are on the record. 1:01 p.m. Eastern Time.

Good morning, Luca. My name is Dujuan Sevillian. I'm with the National Transportation Safety Board. I'm a Human Performance Investigator. Thanks for taking time out of your day to interview with us.

The National Transportation Safety Board's overall mission, we investigate airplane accidents, but we also come up with safety recommendations. That's one of our most powerful products for the industry. You're here today because you're an expert, and we want to hear from you about EuroSafety and your interface with EuroSafety.

On the phone we have parties to the investigation, so in a moment the folks on the phone will introduce themselves. We have a NTSB investigator, FAA representative -- not from the enforcement side, but from the safety aspect -- and a company representative.

You're allowed one representative. So who would you like to represent you today?

MR. DELL'ANESE: Roberto Bouchard, which is one of the owners at EuroSafety.

DR. SEVILLIAN: Okay. Thank you. As I stated earlier, we're recording the conversations, so there's no confidentiality. A

1 transcript will be developed in the future, which will be
2 available in a future public docket.

3 So let's talk about how the interview will work. We'll have
4 two rounds of questions from the folks on the phone. And any time
5 you need a question restated, repeated, let us know, and we'll go
6 through that process and repeat it. And if there's any time that
7 you need a break, let us know, and we'll take a break.

8 So with that being said, I'd like to have folks on the phone
9 introduce themselves. Let's start with Fabian.

10 MR. SALAZAR: Luca, good afternoon. My name is Fabian
11 Salazar. I am looking into the operations side of the accident.

12 MR. DELL'ANESE: Okay.

13 DR. SEVILLIAN: Matt?

14 MR. RIGSBY: This is Matt Rigsby with the FAA's Office of
15 Accident Investigation. Just will reiterate that I'm not from an
16 enforcement side but from the safety side.

17 DR. SEVILLIAN: Thank you.

18 MR. DELL'ANESE: Understood.

19 DR. SEVILLIAN: Thank you, sir.

20 MR. BOUCHARD: Matt, can you spell your last name again for
21 me? This is Roberto.

22 MR. RIGSBY: Sure, Roberto. It's Matthew Rigsby,
23 R-i-g-s-b-y.

24 MR. BOUCHARD: Okay. Thank you.

25 DR. SEVILLIAN: Garret?

1 MR. DALTON: Hey, Luca. It's Garret Dalton here, Director of
2 Operations from Island Express Helicopters, and I'm representing
3 the company.

4 MR. DELL'ANESE: I get it. How are you?

5 DR. SEVILLIAN: Okay, Luca, are there any questions before we
6 get started?

7 MR. DELL'ANESE: No.

8 INTERVIEW OF LUCA DELL'ANESE

9 BY DR. SEVILLIAN:

10 Q. Okay. So, Luca, for the record, could you please state your
11 first and last name with spelling?

12 A. Yeah. My name is Luca Dell'Anese. It's L-u-c-a. Last name
13 Dell'Anese, D-e-l-l-'-A-n-e-s-e.

14 Q. Okay. And what's your position at EuroSafety?

15 A. I'm one of the instructors.

16 Q. Okay. Can you give us a brief aviation background?

17 A. Yes. I learned how to fly in Italy. I grew up in Italy.
18 That was in 1990. Start flying in the United States in 1995. I
19 have an AGP, CFII. Been teaching since 1996.

20 I did work for Island Express in the late '90s. I've been an
21 instructor, check airman for Part 135, for a good part of it.
22 I've been teaching from Bell 206 to helicopter AS350, 355, B0105,
23 Agusta 109, Sikorskys, (indiscernible). And I have approximately
24 8,500 hours.

25 I can mention, been flying for 30 years, and been an

1 instructor for most of it. I've been working for EuroSafety since
2 2009. And that's it.

3 Q. Okay. How long as an instructor for EuroSafety?

4 A. In 2009 with EuroSafety.

5 Q. Okay. And do you know about --

6 A. Sikorsky -- sorry.

7 Q. No. Go ahead, go ahead.

8 A. Sikorsky I've been teaching -- been flying and teaching the
9 Sikorsky since 2000. Originally under contracts for Children's
10 Hospital both in Los Angeles and Dallas. And been trained by
11 FlightSafety.

12 Q. Okay. On the -- do you have any experience in the S76?

13 A. Yeah. S76, like I mentioned, been flying it and teaching it
14 for about -- exactly 21 years now. And on the top of my head, I
15 have 1,300 hours, a little bit more than that, in the Sikorsky
16 S76, A Model, B Model, B/C+.

17 Q. Okay. And you mentioned you worked for Island Express in the
18 '90s.

19 A. Correct. I was there for 2 years. I think it was '98, '99
20 or '99 early 2000, something like that. At the time, they did not
21 have Sikorsky's. It was AS350S.

22 Q. Okay. And what was your role there in the '90s?

23 A. I was a line pilot and assistant chief pilot.

24 Q. Okay.

25 A. I did the training as well at the time.

1 Q. Okay. So can you talk to us about your duties as a
2 instructor for EuroSafety?

3 A. Yes. When I started working for EuroSafety, we provide
4 training. So they -- typically, you know, a customer will contact
5 us, and then we try to understand what their training needs are.
6 And we have a training curriculum, and then we go on location. We
7 have a ground school, which it depends on the type of aircraft and
8 type of experience, and give an initial course or recurrent class.
9 And then after that we do flight training.

10 For S76, you're looking at about 5 days ground school for an
11 initial, and about 2 or 3 days, depending on experience, on the
12 recurrent. And then when we -- and then we do the flight
13 training, which is about, I believe six flights for an initial
14 course, and then two flights for a recurrent class.

15 Q. Okay. So as far as the curriculum, what are some of the
16 highlights of the curriculum that you would -- for a ground
17 school? Let's start with ground school.

18 A. Yes. So the ground school would be -- we're going to go
19 through all -- well, pretty much, we follow the flight manual,
20 right, and we're going to go over the general section, limitations
21 on the systems, normal emergency procedures, optional equipment.
22 And then in the training is -- focuses also on the type of
23 operations that the customer would perform, and this case was the
24 VFR. But San Francisco, for example, they fly IFR, so then
25 (indiscernible) will have an IFR segment on top of that.

1 Q. So I know --

2 A. In other words, you know, follow the flight manual, and make
3 sure that we cover all the flight manual.

4 Q. Right. And you were telling -- you were saying that it
5 covers customer-specific information as based on that customer
6 need. Do you --

7 A. Correct.

8 Q. Yeah. Do you give any training on IMC conditions? Do you
9 get into that in the ground school?

10 A. Yes. Yes. So, as I mentioned was a check airman for Part
11 135, and even though you fly VFR, right, during a check ride you
12 may be required, at the discretion of the FAA examiner or the
13 check airman, to (indiscernible) on VFR. If the aircraft is
14 equipped with instrument navigation, you may be required to
15 demonstrate proficiency in the (indiscernible) of IMC and do an
16 approach back to the airport if the instruments are installed.

17 And we did cover that because of mainly the check ride the
18 FAA will give to the pilots, so to make sure that they're
19 proficient and are ready to pass the check ride.

20 Q. Typically, when you conduct the ground training, do you see
21 pilots, the operators, do they generally pass the ground school on
22 the first attempt or do they not pass the ground school on the
23 first attempt?

24 A. Generally speaking, you know, we pride ourselves to do
25 training to proficiency. So it really depends on -- you know,

1 some people have been flying this airplane for longest time, so
2 it's easier. Somebody is newer, so it takes a little bit longer.
3 And even though we do have, let's say, a guideline, like an
4 initial class is at about 32 hours, right? And then if somebody
5 needs longer, you stay longer.

6 Same as the flight training. There's six flights of average
7 an hour and a half each, right? Beyond that the students get
8 tired. That's a guideline. Occasionally, we go over that -- not
9 occasionally. That's the central goal.

10 I was just teaching a class in Miami, and we did go, you
11 know, until the candidate is comfortable. We always say, you
12 know, we do the training until you're comfortable and I'm
13 comfortable. And then sometimes, yeah, we do go over. But that
14 depends on the particular individual.

15 Q. All right.

16 A. Then if, you know, if the time they're significantly over,
17 we'll have discussion with the chief pilot or director of
18 operations to see if the budget allows to go beyond how many hours
19 are required. That is their decision what they want to do with
20 it.

21 Q. Um-hmm. And as far as flight training --

22 A. Because not everybody learns, not everybody learns at the
23 exact same pace. We know what average is, you know, and then some
24 people take longer, some people take less.

25 Q. Absolutely. And as far as flight training is concerned, you

1 said there's a -- is there a curriculum as well that covers a bit
2 of information on --

3 A. The flight training portion?

4 Q. Yes.

5 A. On the flight training, yes. So typically, we break it down
6 in, let's say, six flights, so two flights per day, right. So
7 typically we break it down to about three days, right. And will
8 be one day, one flight in the morning, and then somebody takes a
9 break, and then there's a flight in the afternoon. That would be
10 the average, right.

11 And then the flight training starts the first flight with an
12 orientation flight. These helicopters are fairly, you know,
13 complicated. They have a lot of systems. So you start with
14 orientation of the flight, and go over all the switches and the
15 landing gear and the autopilot system, and go over the features
16 that are available, which you may or may not use all of them.

17 For example, there's a hover mode in the Sikorsky that we go
18 over during the initial phase of the training, but then there's no
19 practical use for most operations. Unless you fly for the Coast
20 Guard, and you're placed at sea, you never, you never use that.
21 But we go over it so everybody is familiar with every button that
22 is installed in the helicopter.

23 And then after that we're going to make it through our normal
24 procedures, and then we're going to do emergency procedures. And
25 every day and every flight has the emphasis over, let's say,

1 single-engine failures on one flight, and (indiscernible) failures
2 on another one, and pedal failures on another one, et cetera.

3 Part of the -- on the last flight, the last scheduled flight,
4 we do go over the instrument portion of it with the IMC
5 recoveries, and then -- and typically that part is covered by how
6 we recover from them and the different techniques, hand flying
7 versus autopilot, different usages of the autopilot. And then
8 communication with ATC, asking for vectors to good weather. And
9 if that is not -- the good weather is not available, how to --
10 what approaches are in the area and flying instrument approach
11 back to the airport.

12 Q. Can you discuss with me -- you mentioned IMC recovery method
13 technique. Can you --

14 A. Yes.

15 Q. Can you describe that? What would you teach a pilot?

16 A. Okay. So typically we want to -- there's a difference
17 between airplane pilot that fly helicopters and pilots -- and
18 helicopter pilots that fly only helicopters. Initially, we always
19 start that we have the pilot fly straight and level, and under
20 ideal conditions, allows them to close their eyes and try to fly
21 the helicopter just by feel, right. Imagining that we're entering
22 the clouds under best case scenario.

23 And then (indiscernible), of course, you know, depending on
24 the automation and the stability of the type of aircraft,
25 eventually somebody will get in an unusual attitude. And that's

1 when is very important to express the importance of not entering
2 in IMC conditions, which is not only clouds, but is also flying in
3 night with (indiscernible), for example, because the dangers with
4 it. Once we did that, we're going to start the recovery
5 procedures with automation and without automation. Without
6 automation is the quickest.

7 And then at that point, we're going to do different scenarios
8 like nose up and (indiscernible) bank, for example, or descending
9 with the banks and no banks at different speed, speed changes,
10 high speed, low speed. And then recover by hand flying it is
11 definitely faster. But, you know, you have to deal with, of
12 course, the special instrumentation.

13 So we stress that if you feel that you're not -- that you're
14 incapacitated, if you want to use that term, then you can use
15 automation. And that only can be done by usage of the autopilot
16 using heading, vertical speed, and indicated air speed,
17 (indiscernible) autopilot, or usage of the go-around button.
18 Because the autopilot has severe limitations when the air speed is
19 too low, and we cover and demonstrate the limitations of the
20 autopilot.

21 Q. All right. What would you tell a pilot that is flying in VFR
22 conditions, and they somehow get into the clouds without their
23 knowledge? They're VFR, and all of a sudden they look up, and now
24 they're in the clouds. Would that be a manual type of way to
25 recover or would you use the autopilot?

1 A. The autopilot is the preferable method of recovery.

2 Q. Okay.

3 A. Because, you know, assuming that everything is work -- works
4 and is proficient, of course, right, the autopilot -- like we fly
5 -- I fly instruments all the time. And when we're in the clouds,
6 we use the autopilot system because is the best way to do it for
7 those circumstances. The disadvantage of using autopilot is that
8 it's a little bit slower to react than if you're hand flying
9 during the recovery.

10 Q. Okay. I want to switch --

11 A. For example -- go ahead.

12 Q. Go ahead.

13 A. For example, when we do the unusual attitude recovery, and
14 you do the recovery flying manually the aircraft, you can regain
15 stabilization faster than the autopilot. The difference is the
16 autopilot is reliable. You may not -- if you're confused, you may
17 not be able to recover as quickly as the autopilot does.

18 However, the autopilot, when the speed is below the minimum,
19 then it does not work really well. The autopilot was designed to
20 operate between 55 and 140 knots. That's when explain -- that's
21 when the autopilots shine. At low speed, these types of
22 autopilot, they don't work -- they're slow to react, and there's a
23 lot of limitations with that, especially in the three-axis mode.

24 Q. Okay. So I want to switch gears here. Did you provide
25 training to Island Express, to their pilots?

1 A. Yes.

2 Q. Do you know -- are you familiar with Ara Zobayan?

3 A. Yes.

4 Q. Okay. When you were training Ara, can you remember any sort
5 of -- what do you remember about his performance?

6 A. I've been training Ara since, I believe, 2013, 2014. And we
7 started with the AS350. At some point they added the S76 model,
8 and I did his initial training, and every year after that, I did
9 his recurrent training. He always did really well, like all the
10 other pilots are like -- I mean, but it -- you know, we did the
11 training, and we cover all the maneuvers we have to cover. And I
12 didn't -- the training went well. I didn't notice or didn't
13 identify any particular weaknesses.

14 DR. SEVILLIAN: Okay. Thank you. I appreciate that. So
15 those are the questions I have for now. Thank you.

16 Fabian, go ahead.

17 MR. SALAZAR: Luca, thank you for taking the time to talk
18 with us. Dujuan has pretty much asked most of the questions. I'm
19 just going to go through my list to try to make sure not to ask
20 you the same questions. Okay?

21 MR. DELL'ANESE: Okay.

22 BY MR. SALAZAR:

23 Q. When you do your IIMC recovery, and the pilot satisfactorily
24 regains control of -- you know, controls the aircraft and has it
25 straight and level, do you have them then coordinate to do an

1 instrument approach?

2 A. Yes.

3 Q. The instrument approach, is it -- which do you prefer, the
4 precision or the non-precision? How do you make that decision?

5 A. It depends on the area of operation. For example, in the
6 Long Beach area, the best available approach there will be the ILS
7 in Long Beach.

8 You know, all -- everybody that flies with Island Express has
9 an instrument rating. In the case of Ara, he even had the double
10 I. And these people I've been teaching, part of the -- in Ara's
11 case since he was a double I, they would be teaching those same
12 approaches over and over with their students. So they're very
13 familiar with that area.

14 You have air traffic control, you know, circle approach
15 there, which is great. They have been flying that approach many,
16 many times during training. So all the frequencies, the
17 procedure, is not an unknown.

18 Now if they have to go to a different area -- for example,
19 when I teach the Sikorsky in Hayward, they have an LTV approach in
20 Hayward. So it makes more sense to choose an LTV approach into
21 Hayward because otherwise will have to do a localized
22 (indiscernible) which is more complicated.

23 So in the Long Beach area everybody trains on the ILS, and
24 then after they've done that one successfully, if they wanted to
25 do the VOR and ramper with -- a couple of times the VOR and the

1 GPS, just to be familiar with the buttons and the switches for the
2 GPS approach as a secondary option. But number one choice would
3 be the ILS because that's what makes the most sense in that
4 environment.

5 Q. Okay. When you're having them do the approach when --

6 A. Understand?

7 Q. Thank you. When you have them do the approach, do you have
8 them use the autopilot or do you have them hand fly it?

9 A. Initially always the autopilot because there's a lot of
10 things going on, and that normally reduce the workload. When
11 somebody has -- as the years go by, people become more and more
12 proficient. For proficiency, like if somebody wants to hand fly,
13 they can hand fly.

14 But in a scenario like that it will definitely be -- I mean,
15 I taught them in IMC, if you have an autopilot available, you
16 really want to use the autopilot. And that's what we focus on.

17 Q. Okay.

18 A. The hand flying portion is just for the initial recovery,
19 somebody chooses to do that, and then he switches to autopilot
20 because that's the best tool available that you have.

21 Q. Okay. Luca, you mentioned during recovery using -- not using
22 automation and then using automation. And then with automation,
23 you mentioned the go-around button. If you press the go-around
24 button in the S76, does it apply power for you as well or do you
25 have to apply power?

1 A. No. The 76 is a four-axis, is a four-axis autopilot. So
2 when you apply -- when you push the go-around button, either on
3 the collective or on the flight director screen, it's the same.
4 The helicopter will go to about 750 feet per minute rate -- first
5 thing and that's wings level. Then you go 750 feet per minute
6 rate of climb at about 75 knots. And then cycling (indiscernible)
7 left to right, (indiscernible) and collective. Does everything
8 automatically.

9 The only catch to that button is that it was designed to
10 execute an ILS and -- a go-around from an ILS. So if you push the
11 go-around button at low speed, like 20, 30 knots, it may not react
12 as well as when you push it at, let's say, at 90 knots.

13 Q. Got it.

14 A. Because it will be below minimum speed, right.

15 Q. Okay. So give me the, give me the standards again -- it'll
16 get me into a 750-foot per minute rate of climb?

17 A. Yeah.

18 Q. Did you say it will --

19 A. 75.

20 Q. -- level?

21 A. Yeah. Wings level first. No heading, just wings level. 750
22 rate of climb and 75 knots.

23 Q. Thank you. Do you -- if you have -- well, let's talk about
24 SAS and SAS failure training. I noticed that was on the --

25 A. Yes.

1 Q. Will you walk us through your SAS failure, and what you
2 expect the pilots to do with SAS failures?

3 A. Okay. So the 76 has two autopilots, AP1, AP2, your SAS,
4 Stability Augmentation System. So this -- if you lose either one,
5 right, the helicopter is still fairly stable. You don't really
6 feel that you lose control. However, the flight director will not
7 be working at this point, so you will have to hand fly the
8 helicopter.

9 If you lose the full SAS -- full stabilization system, the
10 helicopter becomes fairly, you know, unstable, right. At that
11 point, you're going to slow down below 120 knots according to the
12 manual. Will likely to go about 80 knots, landing gear down; that
13 improves stability. And then you fly at that speed to an airport,
14 and you will do a run-on landing at the airport because it will be
15 the easiest maneuver.

16 Q. I got it. So you slow down to 80 knots, and do a run-on
17 landing because that's going to give you the most stabilization --
18 or the best stabilization?

19 A. Yeah. The book says -- yeah, the limitation on the book
20 would be 120 knots, right? But, you know, we like about 90 knots,
21 landing gear down. That's going to help stabilize it, and then
22 you fly about 90 knots. Is a good speed. It's very manageable at
23 that speed.

24 And then you're going to try to avoid hovering because, of
25 course, is a little bit unstable. So the prescribed maneuver

1 would be run-on landing. Touch down at about 20 knots, something
2 like that -- 15, 20 knots. You wouldn't need to go too fast. It
3 just helps with the stability.

4 Q. Got it. Do you ever -- let's say you have a very proficient
5 pilot who is hand flying his approach. Will you ever give him a
6 SAS failure while he's flying his approach?

7 A. No. Because it goes -- we did it and we do it in the
8 simulator but not in the aircraft.

9 Q. Okay.

10 A. The simulator we do it, but not in the aircraft. Because
11 that goes beyond the scope of the training. If you're using
12 (indiscernible), I mean, it will be just too much.

13 Q. I would say that is a very complex, difficult task to achieve
14 a hand flown instrument approach without the SAS, and trying to
15 apply the approach and what the book is telling you to do in
16 slowing down and such. Okay. Thank you very much.

17 A. You're welcome. Thank you.

18 Q. Now I -- because I want to get it understood very well, let's
19 go back to IIMC recovery. I'm a brand new pilot, and I'm training
20 in the S76. We're sitting on the ground. So we're doing the
21 ground training.

22 A. Yeah.

23 Q. And I want you to walk me through what you would expect me to
24 do, or you would like me to do, if I go inadvertent IMC. While I
25 was flying straight and level, I just popped into the clouds.

1 What would you have me do under ideal circumstances?

2 A. Okay. A lot has to do with the environment that we operate.
3 In this case, will be, you know, I'm talking about super high
4 altitude. So we have a little song that we like to sing. It's
5 called "Pitch, Roll, Power and Yaw," right. So that reminds you
6 of what to do in which sequence and at what speed. So with that
7 we're going to adjust the attitude. So when I adjust the pitch
8 and the roll it can be done almost simultaneously. Wings level
9 and the pitch is fairly level. We're going to add power -- we're
10 talking about hand flying, correct?

11 Q. Yes, sir.

12 A. Yeah. So now we're going to add power to about 70, 75
13 percent torque, 80 percent torque if you are heavy, right. And
14 then we're going to control the panels to make sure we're in
15 (indiscernible). At this point, the helicopter is stable. Now,
16 that's step number one.

17 Step number two, we need to adjust the speed to about 75, 80
18 knots. Now, if the -- of course, you have to adjust the attitude
19 to a few degrees nose down to accelerate, or maybe have to adjust
20 it to few degrees nose up to slow it down to about 70, 80 knots.
21 Make sure wings level, pitch, you know, few degrees nose up or
22 down depending if you want to slow down or accelerate, and 75, 80
23 percent torque and you're in (indiscernible), helicopter has got
24 to be climbing. Then we're going to get the speed adjusted, like
25 we said, to about 75, 80 knots. We're going to verify that we're

1 going to have a positive rate of climb.

2 And then at this point, we either go back to operate the
3 (indiscernible) mark which was preset in the corrective action, if
4 somebody did it. And then we're going to go back to our heading,
5 which in this case would be (indiscernible). Then we're going to
6 switch -- we're going to verify vertical speed altimeter, radar
7 altimeter, and we're going to switch to our GPS. Or if there
8 isn't the GPS there's going to be an iPad, something that will
9 help you with the terrain. And then you're going to move away
10 from rising terrain.

11 So now the helicopter is in a safe attitude. It's climbing.
12 Don't make any turns. We're going to go to no more than 15
13 degrees of bank, ideally 10 to 15. So we're not going to go back
14 into our -- in an unusual attitude. And then by now we should
15 transition to an autopilot system with the selection of heading,
16 indicated air speed, vertical speed. This helicopter has an
17 altitude pre-select, so you can select landing 6,000 feet for
18 example. You engage it, and it will automatically level off at
19 6,000, for example.

20 At this point, the helicopter is stable. You need to
21 communicate. And then we're going to squawk 77 (indiscernible),
22 and we're going to talk to somebody in the control tower or ATC.
23 And if somebody doesn't have any frequency, 121.5, they'll get in
24 the right direction. Once we establish communication, the best
25 choice -- remember, you know, this area we're dealing with fog, so

1 probably 6,000 feet you have the -- above the clouds layer. At
2 that point, the best choice is to -- once you are above the cloud
3 layer to fly VFR to an airport where you can land VFR. And in the
4 Los Angeles area, you can always go to the (indiscernible).

5 If that option is not available, then the remaining option is
6 -- so if he vectors to good weather, or if that option is not
7 available, will be to do an instrument approach. With an
8 instrument approach, you're going to request vectors. Going to
9 approach flight, great; if we don't, we're going to have ADDS to
10 give us frequencies, altitudes, courses, all this background.

11 And the best approach, of course, will be an ILS. Because of
12 course the vertical guidance, and because most pilots train
13 into -- to fly on ILS will take you all the way down. If you did
14 use the automation, this helicopter will fly an ILS automatically
15 for you. And when you get to 50 feet the (indiscernible) will
16 even auto-level for you. And even if you are at night, you ask
17 the tower to turn the light intensity of -- the runway light
18 intensity to the highest level. You'll have to be able to see the
19 runway.

20 Q. Thank you very much. That was very detailed. Now, this is
21 just for my own curiosity. If I'm on autopilot, and I've armed my
22 approach to intercept the localizer and glide slope for an ILS,
23 once the S76 intercepts the glide slope, it will or will not
24 adjust the power to follow the glide slope down?

25 A. It does. So they give you vectors, right? Vectors

1 intercept. When you get vectors to intercept, you're going to
2 push the ILS button. The ILS button does two things. It will
3 capture the course, right, and then it will -- when the glide
4 slope is intercepted from below -- not from above because from
5 above will not intercept -- but from below, will capture the glide
6 slope, and will start descending.

7 Now, if you did select indicated air speed as well, right, it
8 will move the collective for you. If you didn't select the air
9 speed, it will not move the collective for you. The 76 also --

10 Q. (Indiscernible).

11 A. It will pitch and the speed will increase, correct. And the
12 Sikorsky --

13 Q. (Simultaneous speaking.)

14 A. When you're flying ILS in the Sikorsky, you start 120 knots.
15 You push ILS button, you push indicated air speed, and you use the
16 decel button. The decel button what it does, it does a
17 calculation on the radar altimeter. And you start at 120 knots
18 typically, as I said, and makes the calculation the radar
19 altimeter. As you get closer to the runway, when you are 200 feet
20 above the runway -- that is on the radar altimeter -- it will
21 automatically slow you down so you'll be at 70 knots 200 feet
22 above the runway. That's, generally speaking, how everybody flies
23 the Sikorsky.

24 Q. Very good. Thank you. Let me go back and make sure there
25 aren't some questions that I missed. It will just take me a

1 moment.

2 A. Yeah.

3 (Pause.)

4 Q. Getting back to the ground training, Luca --

5 A. Yes.

6 Q. Do you have a written syllabus that you hand out to the class
7 that explains to them the topics that you're going to be teaching?

8 A. Yeah. Yeah, we do.

9 Q. Okay. I'd like to put in request for the refresher training,
10 and the initial training on the S76.

11 MR. SALAZAR: And if -- Roberto, if we could have those
12 emailed, that would be perfect.

13 MR. BOUCHARD: No problem.

14 MR. SALAZAR: Thank you, sir.

15 (Simultaneous speaking.)

16 MR. BOUCHARD: Luca, you do have the copy too, right,
17 obviously?

18 MR. DELL'ANESE: Yes.

19 MR. SALAZAR: And please let us know if it's proprietary.
20 We'll make sure to give it the appropriate safeguards.

21 MR. BOUCHARD: Yeah. No, actually, we use -- we kind of use
22 as a guideline the APP PPS. It's pretty much whatever the FAA
23 publishes.

24 MR. SALAZAR: Very good. Yeah. I'd like to see that.

25 My last question has to do with the AS350. I was reviewing

1 the training and evaluation sheet that EuroSafety has, and there
2 does not seem to be a column or a place for IIMC in the AS350. Do
3 you not train IMC recoveries in the 350?

4 MR. DELL'ANESE: The 350 --

5 MR. BOUCHARD: Is that -- go ahead.

6 MR. DELL'ANESE: Go ahead, Roberto.

7 MR. BOUCHARD: No, no. I thought it was for me, but you can
8 answer. Is the same thing. We'll have the same answer.

9 (Simultaneous comments.)

10 MR. BOUCHARD: Go ahead, Luca.

11 MR. DELL'ANESE: In the 350, we typically do not cover that
12 unless customer requires it.

13 MR. SALAZAR: Okay. Luca, those are all the questions I
14 have. Thank you very much for your time, sir.

15 MR. DELL'ANESE: You're welcome.

16 DR. SEVILLIAN: Thanks, Fabian.

17 Let's go ahead to Matt.

18 MR. RIGSBY: Thanks, Dujuan.

19 And thanks again, Luca, for this. Pretty well got mine. I
20 just had a couple of follow-up questions, and first one on the
21 syllabus portion.

22 BY MR. RIGSBY:

23 Q. Is the IMC procedure that you describe, is that part of a
24 syllabus too that you would create with the customer?

25 A. In the syllabus it just says, you know, we're going to cover

1 the IMC recovery procedure, and is pretty much what we explained,
2 and, you know, I mean, and that's the way we do it. Again, you
3 know, in this particular -- we use it for a VFR program, and just
4 use -- of course, you know, somebody could (indiscernible) the
5 IMC, but is mainly covered for the FAA test that is required.

6 Q. Sure.

7 A. It may be requested.

8 Q. Yeah. Okay. And you have flown with Ara in the 76 and done
9 his initial and recurrent training, correct?

10 A. Correct. Yes. I don't remember exactly how many years. I
11 would say 5 years in the 76. Maybe Garret knows better than I do
12 on the -- on that.

13 Q. Okay. And how many hours are the ground school and the
14 actual flight portion?

15 A. Yeah.

16 Q. How many hours --

17 A. So, and again, it depends upon proficiency, but generally
18 speaking, for the average candidate, is 5 days initial ground
19 school with 8, 9 hours a day. And then the flight training
20 typically is six flights, and the flights average at least 1½ hour
21 each, sometimes go a little bit longer than that.

22 And then the recurrent will be 2 days ground school followed
23 by two -- at least two flights, and each flight, again, is an hour
24 and a half to 2 hours I would say. Usually it's an hour and a
25 half -- 1.5, 1.8, something like that. Sometimes it goes a little

1 longer if somebody needs a little extra time, but we try not to go
2 beyond 1.5, 1.6 because then people get tired.

3 Q. Sure. Sure. And do you do that when you do the recurrent
4 with the students, and you do the IMC procedure, do they wear a
5 hood or goggles and --

6 A. Yes. So sometimes yes, sometimes no. Especially if you wear
7 a helmet it's difficult to use a hood on something like that. If
8 you wear a headset that may or may not. It depends on what's
9 available, somebody wants it, somebody doesn't want it. Again, it
10 is more tailored for the check ride.

11 Q. Okay. Do you recall --

12 A. Because most of the time, you know, you use the automation
13 (indiscernible) because the goal is being all familiar on how the
14 switches work and the switchology and what's available to you.

15 Q. Sure. Do you recall what Ara -- what you did with Ara on
16 the -- in that case?

17 A. I don't remember that part.

18 Q. Okay.

19 A. You know, we do so much training, and I don't remember.

20 Q. Sure. Sure. Understandable. And with a typical student,
21 whether it was Ara or somebody, how far down the path of IMC
22 recovery do you take them? Do you take them all the way to an ILS
23 approach?

24 A. Yes. So we start -- you know, we usually go over the ocean
25 where there's no obstacles, there's no traffic. Los Angeles is

1 pretty congested, so you go on the ocean where there's, you know,
2 there's a lot of traffic. And then we -- like I mention, we start
3 with the straight and level and see how long somebody can fly the
4 helicopter by keeping their eyes closed, you know.

5 Q. Sure.

6 A. And then after that, we start doing nose up, and turns or
7 slowing down. You know, when the helicopter slows down in the 76
8 if you have the landing gear up and you go below 55 knots,
9 depending on the model, you do have the -- the landing gear is
10 still sleeping. So the students already know which area to
11 practice in, right.

12 And then after the -- after you do the recovery hand flying
13 the aircraft, we do the -- pretty much the exact same thing using
14 the autopilot system just to show heading, vertical speed,
15 altitude (indiscernible). And then you can appreciate the
16 differences, the advantages, of using an autopilot versus the
17 disadvantages of using the autopilot, right?

18 And also the, the whole idea of the recovery is twofold. Is
19 one fold is, of course, how to master the recovery. And then the
20 second part, which was the most important, is the danger. Because
21 of course you know the limitation that you as an individual have,
22 especially in the stressful situation, and the autopilot has the
23 limitation as well. Especially when we go too slow. If you're 30
24 knots, that autopilot is below the minimum, is not working really
25 well. And, in fact, the manual even tells you below 50 knots,

1 you're not even supposed to engage it. It's not the latest and
2 greatest generation on autopilot.

3 After we did that, we cover the communication. You know, how
4 do we go from wherever we're at to an airport? How do we enter in
5 the system, right? And for all the pilots who (indiscernible)
6 very familiar with those -- the frequencies and circle approach
7 is, you know, is -- I mean, is a good group of pilots, and they do
8 a great job.

9 And then from there, we do the ILS approach into Long Beach.
10 And typically that concludes the flight training portion.

11 Q. Okay.

12 A. Then we do the ILS, and then we're (indiscernible) and then
13 we're done.

14 Q. Okay. You mentioned something about a simulator earlier.

15 A. Yes. So when --

16 Q. Is that training --

17 (Simultaneous comments.)

18 A. No, no. We do it -- as EuroSafety, we do it off in the
19 simulators. But, you know, Roberto and I, of course when we go to
20 the -- when we receive the training, and when -- Roberto and I
21 both used to work for Children's Hospital. I was in Los Angeles;
22 he was in Dallas. And we are always receive our training from
23 FlightSafety in West Palm Beach, Florida. And your colleague was
24 mentioning if we fly SAS-off IMC. And, of course, that's
25 something that we would practice in the simulator, but it's

1 something that I would never, ever practice in actual IMC
2 training.

3 Q. Sure.

4 A. And for -- even to do it in VFC conditions, I think it goes
5 way beyond the scope of covering (indiscernible). I think the
6 stress level is high enough if everything works, there's no sense
7 adding crazy emergencies to it. It will be just too much, too
8 much stress.

9 Q. Sure. Okay. I guess, if a person or if a pilot has
10 issues -- flying issues, whether it's IMC or whatever, do you
11 document that? Does EuroSafety have a documentation process for
12 recording pilot weaknesses or pilot strengths and that type of
13 thing?

14 A. You know, back in the day I remember when I learned, there
15 used to be a grade one through four, one through five. The
16 industry went away from all that. Is either a pass/fail box.

17 And even the scale doesn't exist. Because imagine I was to
18 fly with somebody, or even if I give a flight review to somebody
19 for example, and the candidate is not proficient, there is no way
20 for me to fail him, right? I just do more training or eventually,
21 if somebody doesn't reach the proficiency level, I would not give
22 them the approval. So as with CFI, there are really no tools for
23 us to fail anybody. We can't. The FAA doesn't allow.

24 Q. Okay. So did they get like a certificate or something from
25 EuroSafety that --

1 A. Correct.

2 Q. -- says they've been through training? Okay.

3 A. Correct. We do -- if somebody is not -- needs more time, you
4 know, we spend more time. And then if the time goes beyond the
5 budget, then the company will decide maybe is too much, and then
6 we won't do that. And then at the end of the completion, we have
7 a record of training, and then people get the certificate that we
8 issue, and that's that.

9 But, you know, Ara did really well through -- all through the
10 years. I never had any doubt that -- any doubts. He's always
11 been a great pilot, performed really well, very proficient. He
12 always demonstrated sound judgment in the -- during the training.
13 I have nothing bad to say.

14 Q. Okay.

15 A. You know, and the personality -- always been a great, great
16 guy to me. I mean, there's no question about it.

17 MR. RIGSBY: Okay. I think I'm done. Thank you.

18 MR. DELL'ANESE: Welcome. Thank you.

19 DR. SEVILLIAN: Yes. Thank you, Matt.

20 And, Garret?

21 MR. DALTON: Hi, Luca. I've got no questions. I'm good. I
22 think you've answered everything.

23 MR. DELL'ANESE: Thank you, Garret.

24 DR. SEVILLIAN: Okay. This is the timeframe where we have
25 our second round of questioning. I don't have any further

1 questions.

2 Fabian?

3 MR. SALAZAR: I'm good as well.

4 Luca, thank you for your time, sir.

5 MR. DELL'ANESE: Thank you. Appreciate it.

6 DR. SEVILLIAN: Matt, anything?

7 MR. RIGSBY: Nope, no follow-up here. Thank you.

8 DR. SEVILLIAN: And, Garret?

9 MR. DALTON: No. All good here. Thank you.

10 DR. SEVILLIAN: Okay. Thank you, Luca, for taking time to
11 interview with us. Is there anything that we should have asked
12 you that we didn't?

13 MR. DELL'ANESE: No. I think under the circumstances, you
14 know, great. And then we'll provide you the copy of the training
15 curriculum for your review. And if you have any follow-up or
16 anything, just give us a call, and you have 100 percent of our
17 support in anything you may need.

18 DR. SEVILLIAN: Sounds good, Luca. We appreciate it.

19 Roberto, thank you again.

20 And that concludes our interview. Off the record at

21 1:25 p.m. Eastern. Thank you.

22 (Whereupon, at 1:25 p.m., the interview was concluded.)

23

24

25

CERTIFICATE

This is to certify that the attached proceeding before the

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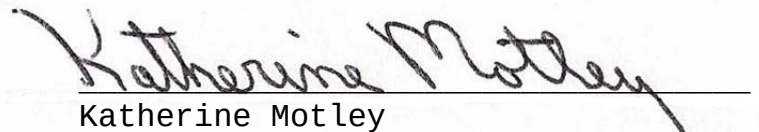
IN THE MATTER OF: SIKORSKY S76B HELICOPTER N72EX
 CRASH NEAR CALABASAS, CALIFORNIA,
 ON JANUARY 26, 2020
 Interview of Luca Dell'Anese

ACCIDENT NO.: DCA20MA059

PLACE: Virtual

DATE: February 26, 2020

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.


Katherine Motley
Transcriber