

Docket No. SA-531

Exhibit No. 2-M

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Operations Group Chairman
Interview Summary – FAA Principal Operations Inspector
Douglas Lundgren

(56 Pages)

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF ADMINISTRATIVE LAW JUDGES

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Investigation of: *
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CRASH OF CONTINENTAL CONNECTION *
FLIGHT 3407, OPERATED BY *
COLGAN AIR, INC. * Docket No.: DCA-09-MA-027
FEBRUARY 12, 2009, 2217 EST *
CLARENCE, NEW YORK *
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* * * * *

Interview of: DOUGLAS LUNDGREN

NTSB, Conference Room C
429 L'Enfant Plaza East, S.W.
Washington, D.C.

Tuesday
March 17, 2009

The above-captioned matter convened, pursuant to notice.

BEFORE: ROGER COX

APPEARANCES:

ROGER COX
EVAN BYRNE
National Transportation Safety Board

KEN WEBSTER
Regional Senior Investigator-Operations Air
National Transportation Safety Board, Canada

EUGENE CONWAY
ASI Air Carrier Operations, FAA

CAPTAIN TIM DITTMAR
Colgan Air

HARLAN SIMPKINS
Q Series Custom Liaison Pilot
Bombardier

CAPTAIN MIKE WICKBOLDT
Air Line Pilots Association

MARK A. TOMICICH, ESQUIRE
Federal Aviation Administration
Office of the Chief Counsel
800 Independence Avenue SW
Washington, DC 20591

(202) 385-8253/8255
(202) 493-5020/5068 (fax)

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P R O C E E D I N G S

(11:55 a.m.)

INTERVIEW OF DOUGLAS LUNDGREN

BY MR. COX:

Q. Good afternoon, Doug. Welcome. We'd like to get underway right away by asking your full name, please.

A. Douglas John Lundgren, L-u-n-d-g-r-e-n.

Q. Your age, please?

A. Fifty-four.

Q. Your current title and position?

A. I'd say Principle Operations Inspector assigned to the Colgan Air certificate.

Q. And how long have you been in that position?

A. Right on three years.

Q. I presume you're a certificated airman?

A. Relevant to this conversation, ATP type rated in the CRJ, the Dash 8, Q400 and the Jetstream 31.

Q. Great. And your flight experience?

A. Eighty-four hundred total, probably 6,000 multi, somewhere around 5,000 multi PIC.

Q. You had the opportunity to get any flying time on the Q400?

A. Yes. It was in the simulator about two weeks ago.

Q. So what would be your accumulated flying experience on the Q400?

1 A. Probably less than 50 hours, all simulator. Let's
2 correct that. Make that about 30 hours probably.

3 Q. Okay. How long have you been with FAA?

4 A. Eighteen years.

5 Q. And your last prior assignment prior to becoming POI at
6 Colgan?

7 A. POI for Independence Air and Atlantic Coast Airlines.

8 Q. Okay.

9 A. And that was for eight years.

10 Q. Okay. Wouldn't know Dave Helson (ph.), would you?

11 A. Yes. He was one of our check airmen and fleet managers
12 we worked with.

13 Q. Great. All right. A couple of subject areas I'd like
14 to discuss with you. One is the existence of the training records
15 at Colgan. As we have found, Colgan uses a program, I think they
16 call it qual check.

17 A. Crew Qual.

18 Q. And this would be an example.

19 A. Yes.

20 Q. And in your view, is this system adequate for the needs
21 of the FAA in terms of its ability to keep track of the history of
22 training performance for pilots?

23 A. We made some inquiries about that, about some of the
24 issues I think you're talking about, so our answer is yes.

25 Q. Specifically, if a pilot has a record of training

1 failures or train to proficiency issues or other concerns where he
2 may have more than one failure unsat -- or trying to -- the issue.
3 Is this record adequate for you to determine if all of his
4 training has been properly accomplished?

5 A. I think it meets the regulatory requirements at this
6 point. I'm not happy -- I'm not as -- I'm not personally as happy
7 with the lack of comments in the system, although I think what
8 you're getting to is that if there are unsats there is a comment
9 line and so that's all they have at this point.

10 Q. So if you wanted to know more about a particular pilot's
11 history and what issues he may have had, what method would you
12 use, an FAA inspector, to become familiar with his history?

13 A. History in the company?

14 Q. His history of whatever proficiency issues he may have
15 had previously.

16 A. While employed by that company?

17 Q. Right.

18 A. Yeah. We use Crew Qual and we use -- indicates the --
19 records that indicate who the instructor was and so at times we
20 are, like you are, we interview previous instructors.

21 Q. So talking to previous instructors would be the way that
22 you would rely upon to determine --

23 A. In conjunction with comments in the system. I have a
24 personal preference.

25 Q. Um-hum.

1 A. My personal preference is that all of the paper comment
2 sheets would be retained and we're in the process of actually
3 reviewing their electronic records system right now and under
4 Op Spec A025. They do have electronic recordkeeping and that's
5 always basically subject to our approval and I have a very open
6 mind. If it turns out that collectively, as a community, we're
7 not happy with the degree of specificity here, I'm all for
8 remedies like keeping all of the data entry forms, all the comment
9 sheets from checkride form.

10 Q. Good. Next question related to training records and
11 tracking of pilots. We've heard, in speaking with a number of
12 people in our interviews, when I asked if Colgan maintained any
13 kind of a tracking program for pilots who may have had proficiency
14 issues, I've been told that there is no formal program. That
15 being the case, what method do you recommend that Colgan use to
16 monitor pilots who may have had more than one proficiency issue
17 which may raise the issue of needing additional monitoring or
18 training?

19 A. Well, that gets to the question of process measurement,
20 which, as you may know, is one of the five ATOS elements. Colgan
21 -- funny you should mention that. Colgan is presenting to us --
22 has presented to us about a month ago, a new flight operations
23 training manual and we are insisting on some degree of process
24 measurement before we can approve these manuals, so that is an
25 open quest right now as to how that's going to be done. So

1 process measurement in the training department is different than
2 process measurement in a baggage, you know, a lost baggage
3 department. Obviously, it's a lot higher criticality. We would
4 think that a process measurement for training department would be
5 a way of doing special tracking.

6 Q. Um-hum.

7 A. Would be a way of seeing whether any of the remedial
8 training people, any of the remedial training done, say, for ASAP
9 remedies, that's where are there any repeat people, what folks
10 need additional training for initials and recurrences. I mean --
11 so we're standing by to see what they're going to say to us here
12 and I think it's a good opportunity. In the past, we didn't
13 really have much of a regulatory way of demanding that they have
14 any sort of -- call it a special tracking program. So that's --
15 we're actually waiting right now, we actually had a dialog with
16 them yesterday about what process measurement's going to be
17 department by department.

18 The other one would be controls, that's one of our ATOS
19 attributes. So a control -- and we're standing by for that, too
20 -- a control might be do not pass go if you -- you know, don't
21 pass go -- you may not go for the routine checkrides, you may have
22 some sort of special emphasis if you have a history. I don't know
23 of any formal requirements the FAA has. I've not even seen
24 anything in the 8900 guidance that says what sort of tracking
25 there should be. I'm not aware of any rule making. All we really

1 know about is the Pilot Record Improvement Act.

2 Q. Um-hum.

3 A. But that goes to -- really goes to checkride failures at
4 previous employers. So I think there's room for improvement
5 there.

6 Q. Okay. In your prior experience at Independence Air and
7 ACA, did they have a program or formal method of tracking pilots
8 who may have had proficiency issues?

9 A. Yeah. They -- I used that term special tracking and
10 that was an in-house term they used, they used a term called
11 special tracking, which would mean these people are special
12 emphasis people and I -- as I recall, it was a while back, and
13 Helson could probably fill me in here, but I think it was people
14 that needed extra time in initial -- or people that had busted a
15 checkride and you know, colloquially you could call that a bad
16 boy's list or -- but they were folks that just needed special
17 tracking. I never saw, because it was a unionized shop, it was
18 done in full coordination with the ALPA training chairman, so they
19 -- it wasn't a black list at all.

20 Q. Um-hum.

21 A. It was just -- who needed some extra help and needed
22 some extra watching.

23 Q. And do you have the opportunity to interact with POIs at
24 various other 121 carriers to compare whether or not such programs
25 exist elsewhere?

1 A. Well, we have the opportunity. It take a bit of effort
2 on our part. Tonight, for example, I plan to meet with
3 Steve Alpert (ph.), the POI for Horizon and I've been interacting
4 with him long distance, and Jack McCaughlin (ph.), POI for Lynx.
5 I would rather -- I would like to see a formal way -- I'd like the
6 FAA to find ways to promote that and folks with common airplane
7 types. I think there's a lot synergy that can be gained from
8 that, so --

9 Q. Okay, good. You came to Colgan in your present capacity
10 before the Q400 was introduced, so you have been at the company
11 for its history.

12 A. Time of transition, I would say. Many transitions.

13 Q. Yeah, time of transition. Okay.

14 A. Transition from ownership.

15 Q. But you've had the opportunity to be involved in the
16 introduction of the Q400?

17 A. Sure.

18 Q. Just for basic background, when were you trained on the
19 airplane?

20 A. I was trained in October/November 2007.

21 Q. And where was that?

22 A. At FlightSafety, Toronto.

23 Q. Okay.

24 A. And we were using the manufacturer's part, we call it a
25 Part 61 program --

1 Q. Um-hum.

2 A. -- with the rest of the initial cadre of check airmen.

3 Q. Okay. When this airplane was first being set up to be
4 operated by Colgan Airlines, it was going to be introduced as a
5 high-performance airplane to an airline that had previously
6 operated SAAB and Beech 1900s.

7 A. Right.

8 Q. What were some of the concerns or issues that you
9 thought were important for Colgan to make sure they covered so
10 that the airplane could be operated safely?

11 A. Well, I had experience in bringing on other high-
12 performance airplanes in the past, particularly the A319 at
13 Independence, the first big jet they operated. But they had a
14 history of operating glass cockpits, so -- the first thing we look
15 at is glass cockpit, speeds, different philosophy, just different
16 design philosophies. The Dash 8 is more of the Boeing philosophy.
17 The SAAB is something else and the Beech is more of a general
18 aviation philosophy.

19 So we're looking at three distinctly different types of
20 airplanes at the time at the company, so I was also looking at how
21 much commonality can we have, standardization of checklist
22 philosophies, standard quals and of course, I was concerned
23 whether the CRM culture would catch up with, become adaptable to,
24 the new airplane. I mean, we can go on and on. There's a whole
25 list. I was the certification project manager, so I have every

1 detail in my mind, but the other thing we think about, of course,
2 are we think of a training program, we think about adequacy of
3 training aids, you know, FMS is a new thing here, so is -- one of
4 my pet things here is FMS training and FMS standardization under
5 making a box decipherable, usable, on the line. We got a lot of
6 other things coming on line, too -- covers the first time and
7 what's the other thing?

8 The other thing, from a training standpoint, is we knew
9 we were going to do the regular transition from using a
10 manufacturer's training program and basically they are contract
11 instructors through FlightSafety and at some point making a
12 transition to where it was pretty much all company,
13 in-house training and checking using company procedures, so
14 there's layers.

15 And so inherent in that is a very close relationship
16 with the POI, the APM, and company managers of transitioning from
17 everything from course ware to manuals, training aids, sim
18 instruction, line check airmen, IOE, making all that happen from
19 ground zero. But we've been through that before with other
20 airplanes, so I had -- everybody in the FAA team had some
21 experience with that.

22 Q. Given the -- compared to the SAAB, that the Q400 is
23 heavier and faster and it's got very advanced avionics, did you
24 feel that Colgan had the necessary infrastructure in terms of its
25 maintenance capabilities, its dispatch capabilities and its pilot

1 training capabilities to manage that airplane initially?

2 A. You know, we went through a fairly protracted
3 certification process and checked all the boxes in the new
4 airplane process, document any PD. We -- culminating with
5 tabletop exercises with 50 hours plus improving flights and there
6 are some risk controls you take. One of the risk controls, of
7 course, is you use full -- any PD process. You ensure that they
8 have a level of manuals and procedures that embody risk control
9 that you can foresee and that's a difficult task and transition
10 from Bombardier's stuff to manufacturer's stuff because you're
11 trying to see what's out there that's going to bite them.

12 Surveillance is another risk control; we did a lot of
13 that in the early stages of even up to now of the airplanes
14 flying. The company, one of their risk controls was not to try to
15 get ahead of themselves in the training part of it. They really
16 relied on flight safety and basically, Bombardier procedures for a
17 good long while rather than trying to get ahead of themselves
18 until they had their training infrastructure built up.

19 They deliberately, at our suggestion, they deliberately
20 went heavy on check airmen. We were out of the box, I think, with
21 twelve initial cadre check airmen and two APDs, and those were the
22 bulk of the type rides were being done by TCEs, training center
23 examiners. So we had a deliberate mix of APDs and TCEs. And
24 those are just some of the, you know, risk controls we went
25 forward with.

1 Q. As part of the introduction of the airplane, you said
2 you flew about 50 hours of proving runs. How do you determine how
3 many hours and how much was necessary?

4 A. The guidance, the NAPD guidance, calls for at least 50
5 and half of them have to be representative en route passenger
6 flights. The other half can be a mix of training flights; they
7 can even be company business where they're flying their --
8 delivering the airplane and so forth. Generally speaking, there
9 should be -- as I believe, there should be an FAA inspector on
10 board for any of the flights that are getting, except for the
11 delivery flights, that are getting proving run write up. And we
12 adjust them. If we think the company is weak on something, they
13 need to repeat things, then we repeat the exercise, which we did
14 several times.

15 Q. So just to carry on with that, it sounds like 50 hours
16 is sort of a minimum.

17 A. It is, but it can be reduced.

18 Q. Can it? Okay.

19 A. We thought, with an airplane of this size with the
20 changes, we didn't see any reason to really reduce it.

21 Q. Okay. So it sounds like they did do about 50 hours, so
22 it does sound like --

23 A. Right, yeah.

24 Q. -- they stayed pretty much within the plan, the
25 guidelines, not more or not less?

1 A. They had a little more and they two airplanes that were
2 flying. In fact, they did a lot more company -- they did some
3 station training. They would bring the airplane to other
4 stations, bring it around, let the ramp people play with it and so
5 really, they got -- and that was all good, useful pilot
6 familiarization, as well. I mean, everybody had a type rating
7 when they got there, but it was the idea of getting their hands on
8 the real airplane. So in actuality, before they flew their first
9 passenger February 4th, they probably had, I'm guessing maybe 70
10 hours of flying experience in the airplane, at least. In two
11 airplanes, two airframes.

12 Q. All right. Were there any issues or conflicts within
13 the FAA regarding the proving runs?

14 A. Issues within the FAA. Could you expound on that?

15 Q. Well, you know, did you find that anyone, as part of
16 your team, felt that Colgan should have additional training or
17 scrutiny before they were granted the right to operate the
18 airplane?

19 A. We had a person assigned as an APM who had a series of
20 technical issues, but we never heard a recommendation from anybody
21 on the team or outside the -- outside the office saying that we
22 think they need more time or think that the training program is
23 inadequate, that sort of thing, so --

24 Q. Can you recall any specific issues that came up during
25 that initial certification and proving that you thought needed

1 additional attention from Colgan?

2 A. Oh, sure. Introducing airplane there's all sorts of
3 things you amend, you want to get adjustments on. One of them was
4 this is the first time they've flown with two flight attendants
5 and so we found, for example, doing emergency descents, we would
6 set up a scenario, we need emergency descent. We found that
7 interaction between the two flight attendants was not quite as --
8 what came out, in actuality, was not quite what they planned, so
9 they had to -- there was a fair bit of manipulation of -- not
10 manipulation, but amendment of the company flight manual, on the
11 flight attendant manual, about communications, interaction with
12 the flight attendant, especially we're talking about preparing
13 now 74 seats as opposed to 30 sort of thing. So that was one.

14 We -- let me see. We found very quickly the airplane
15 was high-powered, it was wintertime. We found that there was no
16 policy for Bombardier or the company about writing up any
17 exceedances, so we found the airplane, if it exceeded VMO, if it
18 bumped up against the VMO bar pull at low level, particularly
19 below, I think, 7,000 feet is where the VMO is, so restricted back
20 to 245 knots, we found it was very easy at an intermediate level
21 off, if ATC assigned -- customarily, ATC assigns out of Newark and
22 Newark -- I think it's the Newark 7 departure -- level off 2500
23 feet, turn this way, then turn that way, we found that folks
24 really had to pull the power back, which was a bit distracting.
25 So we found, for example, don't bother trying to do a departure

1 checklist at low level. Folks were trying to do things -- had the
2 luxury of time to do it in the SAAB and the Beech and they found
3 that with an airplane with the high degree of automation and with
4 a lot of performance, they had to really -- we had to have a whole
5 different checklist philosophy. You know, we had to really look
6 at workload, so for example, that was one thing.

7 We found technically -- talked about exceedances, there
8 was no company guidance to write anything up in existing FOPP, the
9 flight operations manual. It wasn't really -- was this a
10 mechanical irregularity when the numbers turn red for a second or
11 two? What does Bombardier say? Nothing. Or hardly anything. So
12 we had to change that policy, to be proactive and say hey, write
13 it up any time you do that, so that was a change for us, for
14 example. So the airplane drove a lot of small changes.

15 Q. Okay. We heard that because of operating into certain
16 airports such as Newark, where the traffic heavy, the ATC likes to
17 keep your speed up to the outer and we've heard about this
18 transition where your -- go 180 until you're -- you know, the
19 outer, four or five miles out --

20 A. Um-hum.

21 Q. -- and you have to get stabilized. Did that issue come
22 up when you were proving?

23 A. Yeah. It didn't come up in the proving runs so much.
24 It came up really afterwards in revenue flying and what we
25 discovered on the airplane was that the air speed indicator bug

1 would bump up and down a good 10, almost 20 knots of turbulence,
2 so you would read red numbers occasionally when you think you're
3 flying, you know, 245, 240, 245 and boom, it bumps up. Well, what
4 is that? Is that an exceedance? So we got very specific with
5 Bombardier about what's an exceedance and we got very specific and
6 incorporated their airplane maintenance manual parameters into the
7 company flight manual for the Q400. The thing that really -- and
8 the problem is partially because of ATC structure.

9 They have a tendency to keep the Q400 down low, which
10 the company didn't want because it burns a lot of gas. They'd
11 rather have it up in the teens, but ATC doesn't know whether to
12 treat it as a turbo prop or jet, so bottom line is it spends a lot
13 of time in low altitude structure bumping around and what really
14 -- the control that we put in place, it really put that in check,
15 was to -- when doing IOE with a new captain or a new first officer
16 flying, pull the power back to -- so you fly no more than VMO
17 minus 10 and that pretty much stopped that.

18 Now, Bombardier says hey, the airplane's designed to be
19 flown at VMO, and all airplanes are, but we weren't comfortable
20 with the concept of just making the numbers turn red on a regular
21 basis, so that's what we pulled. We had them pull that back. And
22 that's been something they've lived -- they simply told -- you
23 know, ATC would say can you do 250 knots and the company basically
24 said no. So part of it was just saying no to ATC, we can't go as
25 fast as you want us to go. So that was an issue, probably the

1 February/March timeframe, we did a lot of work on.

2 Q. Okay.

3 A. And Harlan, you may remember that.

4 MR. SIMPKINS: Yeah, very much.

5 THE WITNESS: Yes. In fact, Harlan actually was
6 instrumental in writing an interpretation paper for us that
7 clarified what's an exceedance and what isn't, what has to be
8 inspected, what doesn't, so we're very -- we're probably -- I'd
9 say Colgan's probably an industry leader in that right now.

10 BY MR. COX:

11 Q. Okay. Let me move just a little bit on. You touched on
12 it a little bit when you talked about, you know, the interaction
13 between the captain and the first officer. One of the subjects I
14 like to ask about and I think you could help me with is what
15 concerns do you have, as POI, for a regional company which hires
16 pilots with nominally as little as five or six hundred hours in
17 terms of the ability of that airline to make sure that they
18 conduct safe operations?

19 A. Well, it's the same thing I look at whenever I look at
20 an occurrence. It's already happened, I look at the future. And
21 the elements I look at are, are the procedures adequate, the pilot
22 procedures adequate, first of all. Are the training of those
23 procedures adequate. Are there hidden human factors, issues, that
24 the designers of the airplane, the designers of a training program
25 and the procedures maybe aren't aware of. So any kind of human

1 factors. The other one would be does the company have an
2 effective feedback mechanism for improvement. And I guess those
3 are five elements that I look at all the time, whether we're
4 looking at something in the past or if we're evaluating a proposed
5 change for the future.

6 Q. What steps does Colgan take to ensure that their
7 captains know how to supervise new pilots in the right seat who
8 have never flown turbine powered, high-powered airplanes in a
9 high-density traffic environment?

10 A. Well, some of them are standard remedies. One of them
11 is they fly 20 hours of IOE, initial operating experience,
12 themselves, so they become student captains, and the check airman
13 becomes the student first officer -- ready to step in, if need be.
14 That's after the fact. There is a captain leadership course which
15 is three hours. Whether that's enough, too much, probably not too
16 much, so there's ground school. There is CRM training, as well.

17 Of course, that's all under review. One of the things
18 we've asked the company to do -- you know, I'm kind of maybe
19 indirect on your question here -- we want them or their -- we've
20 started a first officer evaluation program so they're forced to
21 evaluate the first officer; is the first officer getting with it,
22 is the first officer progressing and they're instructed in how to
23 be a mentor in that regard. Now, the other thing, of course, is
24 that they have regular -- an initial line check, themselves.
25 They've got recurrent line checks. Everybody also goes through an

1 initial LOFT, a training, that's right after the type ride, so
2 they're graded as they -- the captain's graded as to how well he
3 supervises the first officer. But after a point, there's a solo
4 period where the captain's off by himself, but the other control
5 they use is they don't use the green on green exemption anymore.
6 They don't have very, very green captains with very, very green
7 first officers. That's one of the controls built in.

8 Q. What, specifically, does green on green mean?

9 A. That's where there would be an exemption for new
10 airplanes where the FAA would allow a captain with less than 75
11 hours in type to be paired with a first officer with less than 75
12 hours in type and so that's something the FAA customarily grants
13 new airplane fleets, but after a year they do away with that. So
14 scheduling is another practice which is what that gets to.

15 Q. Are you confident that Colgan captains set a tone of
16 professionalism in the cockpit?

17 A. Well, until this accident, I thought so. All of our
18 data seemed to point to that, all of our inspections.

19 Q. Now, Colgan has a number of safety reporting systems
20 including an air safety report, irregularity report, trip report,
21 so forth and so on. Do you think that the air safety report
22 elements of that are effectively used by Colgan pilots?

23 A. At the present time, I think there's room for
24 improvement.

25 Q. What steps do you think will lead to the kind of

1 improvements you want to see?

2 A. Well, we would rather see more use of the student
3 feedback form. We would rather see students comment about their
4 training and the suitability -- it's no good to just have the
5 students do it as an -- we like to have them also fill out the
6 student feedback form at the end of IOE, now that they're actually
7 flying. So we're working with them actually to not just make it a
8 one-stop snapshot. The other thing is we don't see a lot of use
9 of the feedback form and we would think that would be the -- Mike
10 has seen that, too. We would think that would be the useful
11 vessel for handbook changes and procedural changes. Curiously,
12 we're not seeing a lot of use of that form. We do have check
13 airmen meetings where check airmen who see everything feed it to
14 the fleet managers.

15 However, I've been pushing for a fleet advisory board
16 concept where each fleet has regular meetings integrating in a
17 formal basis line check airmen, simulator check airmen and so
18 forth, people on the line with an ALPA training representative,
19 with FAA representatives and on a systematic basis go down all the
20 issues that are raised up by anything like first officer
21 evaluations, by check airmen observations, checkrider reports, FAA
22 surveillance. I'm not satisfied the company's done that on as
23 formal a basis that they could and so part of our job, as a
24 diplomat, is to try to persuade them to do that, so we're working
25 with them right now on that.

1 MR. COX: Okay. I'll tell you, I have one or two more
2 subject matters, but I got a good team here and I'm going to give
3 them the opportunity to ask those questions and maybe I won't have
4 to.

5 THE WITNESS: Delegation.

6 BY MR. BYRNE:

7 Q. Picking up on the flight advisory board.

8 A. Fleet advisory board.

9 Q. Fleet advisory board. We heard about that yesterday.
10 There was a recent meeting of that board?

11 A. Yes. Currently involved in five near-term improvements
12 on the Q400 training and procedures program.

13 Q. What are those near-term improvements?

14 A. They're ready to copy.

15 Q. Standby ready.

16 A. Ready. Number one -- so I get this in the right
17 sequence here. Number one was issuance of a CFM, company flight
18 manual, Bulletin 09001. That clarified, amplified the ice
19 protection system on the airplane, brought in to play the
20 importance of setting the reference speed switch and using the
21 proper reference speed from the card and from ACARs. So we
22 identified early on that was an issue in the accident. The second
23 initiative is being completed as we speak and that is a one-on-one
24 mandatory briefing of all Q400 pilots before they fly and that
25 started Friday the 13th. It's ongoing. I think there are 200 or

1 so Q pilots. As of Saturday morning I got a call, said they had
2 done 70. And that was to make sure everybody understood the
3 contents of the Bulletin 09001 because we're kind of catching
4 people -- this considered pop-up training we're catching on the
5 fly. So that was the way the company's making sure everybody
6 understood the contents of that. The third element is happening
7 today and that is a bulletin, 09003, with an accompanying normal
8 checklist, Revision 4.

9 What does that do? It does two things. We're making a
10 very modest checklist change in the approach checklist to add an
11 element of ref speed switch as required and that's above the bugs'
12 element. We realized there was nothing to prompt the person
13 specifically to look at that ref speed switch in the read-and-do
14 or even the flow and that's an interim change. The other one,
15 which we did, was we realized, as a result of the accident,
16 looking at all the Bombardier profiles, FlightSafety profiles, and
17 Colgan profiles, there was really, except for the speed cards,
18 there was really no target air speeds given to fly.

19 We know that maintaining air speed was an issue in this
20 accident. So we implemented some interim target speeds of, I
21 think it was 180 knots before gear-down minimum and I think we
22 also said 160 knots once configured to the marker, which will give
23 -- should give more than an adequate buffer above the ref speed
24 ice or the ref speed non-ice. And we have also amended the
25 approach profiles, both precision and non-precision, with that

1 information, as well. So we've repeated that several places. So
2 speed-to-fly is the second -- is the third element. The fourth
3 element, which is under way, which will come to fruition in a
4 product later this week, is -- we call it an enhanced maneuvers
5 package. We realized that part of this accident was that the crew
6 seemed to be -- was a monitoring issue, air speed monitoring
7 issue, and stall or a stick shaker recognition issue and then what
8 to do, what to -- how to respond to that when the autopilot
9 disconnects and the pitch is suddenly nose-up.

10 And we realized there were no autopilot induced laws in
11 the curriculum. We checked with Horizon, Lynx, none of them had
12 anything. Porter has nothing. We went back to our initial
13 training. There was nothing recommended specifically by
14 Bombardier about that, so we said ah -- several of us who have CRJ
15 training remember that was part of our CRJ curriculum, so we are
16 -- the maneuvers package calls for three -- calls for doing all
17 three stalls, no shortcuts, no waiving any of the stalls on
18 proficiency checks.

19 And the decision was made to do clean stall and approach
20 stall on autopilot, one on a turn, one straight ahead, to
21 introduce the trainee to what a stick pusher is. They never
22 would've really had any positive training in that. And of course,
23 what happens is stick shaker and autopilot disconnect. And the
24 other one we had was a much more robust upset recovery program, so
25 we're looking at bank angles now in the simulator greater than 60

1 degrees and nose up plus or minus 30 degrees with -- realizing
2 that beyond that, you don't have much fidelity in the sim. The
3 fifth near-term fix we're working on with the fleet advisory board
4 is what I would call a complete review of the descent profile, of
5 not just the Q400 but also the SAAB 340. We're looking at all the
6 elements; checklist design, workload implications, crew monitoring
7 implications, standard calls, lessons learned from incidents and
8 accidents, best practices from other airlines, not to mention the
9 regulatory requirements of doing certain things when and where.
10 And of course, we'll be talking to Bombardier a bit, as well,
11 about settings and so forth on -- as part of that review. And
12 we're -- again, we're doing liaison right now with, primarily with
13 Horizon right now because they're the most mature carrier in the
14 country. And those are the five near-term program improvements
15 we're working on with Colgan.

16 Q. What's the --

17 A. Oh, I forgot to mention the sixth element. The sixth
18 element is a total review of the CRM program and that's been
19 ongoing but it's an added impetus right now and that'll be for
20 both of these.

21 Q. Okay. We'll follow up with that in just a sec. You
22 anticipated the question on that. But on the near-term --

23 A. Improvements.

24 Q. -- improvements, what -- how are you defining near-term?
25 When are they going to be fully operational?

1 A. We're talking a matter of days, within -- the first four
2 are really by the end of this week to get a product that I can
3 review. The fleet advisory board effort for Number 5, though, is
4 going to take probably another week, it'll probably take all of
5 next week, people sitting around a table and arguing and so forth.

6 Q. Um-hum.

7 A. So I don't expect we're going to have that review done
8 for the Q400 until the end of next week. The CRM that was
9 targeted before the accident, was targeted to have a product to
10 deliver to me, a prototype, by March 30th, but I think some of
11 those resources have probably been moved elsewhere. But we're
12 looking for probably -- push that back about two weeks, maybe
13 April 15th we're going to see, hopefully, the result of a CRM
14 proposal.

15 Q. Okay. And as far as the characterization of the fleet
16 advisory board, our understanding is prior to the meeting last
17 week, there was one previous meeting of it several months ago?

18 A. Yeah. I was not at all happy with the pace of those
19 meetings. We look at a fleet advisory board as being a systematic
20 way of receiving input, evaluating more than just one person can
21 do, one fleet manager. We're using everybody's experience, coming
22 up with answers. And so it's been a time coming, but it's here.

23 Q. Okay. As far as the CRM training, talk a little bit
24 about the genesis of why that is being modified and how it's being
25 modified.

1 A. I think our consensus with the inspectors is we --
2 everybody that's looked at it basically says we think it meets the
3 advisory circular guidance, but it's not as robust as it should
4 be. We want to see -- I could tell you we wanted to do more of
5 decision making, we wanted to do more in terms of
6 leadership/follower-ship. We wanted to see more of positive
7 communications. We want to see more of setting expectations. We
8 wanted -- I mean, in my -- if I had a magic wand, I would make it
9 like ACA's was, of course, you know, nothing is as good as your
10 last company, but that company had an advanced CRM concept that
11 was amalgam of several creators, but among which was the -- what's
12 the university here that --

13 Q. Texas?

14 A. No, minority or --

15 Q. George Mason.

16 A. George Mason. And so anyway, there were a lot of good
17 features there and they also integrated -- that company integrated
18 a lot of good stuff from United, as well. This company does not
19 model anything specifically on a major carrier. They have now
20 gone out -- this past spring they've gone out to all the major
21 co-chairs and trying to get the best features there and I think
22 they're going to pretty much settle with what Continental has as a
23 model with some of the ACRM precepts they've gotten from George
24 Mason.

25 Q. Okay. And who initiated this change?

1 A. I think it was a joint thing between myself and the
2 Director of Operations, the VP of -- they have a new VP of Safety
3 who comes from Continental, and the Director of Training. So I'd
4 say probably three folks on their side plus myself, just pushing.
5 Just kind of a collective realization that we need to improve.

6 Q. Okay. As far -- you mentioned the captain management
7 training briefly. You said three hours.

8 A. I believe it's three hours right now in their
9 curriculum.

10 Q. Is that adequate?

11 A. Some companies spend an entire day, some companies spend
12 -- they integrate a LOFT period, as well. I would love to see
13 longer training on that. But it's not -- FAA doesn't mandate that
14 at all.

15 Q. Okay.

16 A. There's no place -- it's not mandated in our 8900
17 guidance, it's not mandated in the LOFT advisory -- but I'd love
18 for it to be.

19 Q. Back to your background or when you came on to this
20 certificate, you came on about three years ago?

21 A. Yes.

22 Q. Who preceded you?

23 A. Interim was Joe -- I can't think of his name here -- Joe
24 who has -- mental block. Age 54. Joe, last name beginning with
25 an M, and before that, 2005, would've been Chris Monteleone (ph.).

1 Q. Okay.

2 A. So Chris was the fall of 2005 is when he -- that was
3 ended.

4 Q. And then there was an interim and then you picked it up
5 when?

6 A. Yeah. March 2006.

7 Q. Okay. And how were you -- I guess, how were you
8 assigned the certificate or selected for it?

9 A. The previous POI was doing two jobs, Joe, come on. He
10 was being an APM and an POI and he -- we needed to revert him back
11 to just being an APM and he also, he had a transfer back to the
12 Philadelphia office, so they had a hole and I was fairly qualified
13 having just come from the other certificate.

14 Q. And you're only working this one certificate?

15 A. Yes.

16 Q. And how does Mike Jessie's being positioned up in the
17 Newark area affect his ability to do the job and support --

18 A. Seven letter word, godsend. Yeah. It just so happened
19 Mike was in the -- FSDO and he happened to be a Dash 8 resource
20 and he was being forced to do general aviation work because of our
21 reorganization of the geographic concept and he said I want to do
22 air carrier work and he raised his hands, we had a meeting and
23 there he was. So it's a great thing. It's a bit of a pain for
24 him to come down to Manassas sometimes, but he comes down about
25 once every month or so. We do a lot of work by telecon, lot of

1 work by e-mail, lot of work by phone. But he's ideally positioned
2 to do any sort of special emphasis we're looking for. For
3 example, he's been kind of -- except for this, being pulled away
4 by this interview, he was riding shotgun with the check airmen who
5 were doing that special emphasis briefing we talked about. And he
6 can show up at 6:30 in the morning, watch the -- he can see the
7 special emphasis briefing. He can -- if we say hey, look for
8 something on the Q400 fleet, he can do it within hours.

9 Q. You were talking about the special tracking of pilots
10 prior. It's a SAFO from 19 -- or from 2006. Have you seen that
11 before?

12 A. No. We receive SAFOs but I don't recall this particular
13 one.

14 Q. Just looking at the recommended action, is that -- could
15 you read that and is that describing what you're --

16 A. Yeah. Subject -- train for Part 121 pilots; purpose,
17 the SAFO; promotes voluntary implementation of remedial training
18 for pilots who persist in performance deficiencies.

19 Q. You don't have to read out loud. I was just asking you
20 to read the last paragraph to yourself and --

21 A. Recommended action --

22 Q. -- is that what we're -- what we were talking about?

23 A. Performance history, provide remedial training,
24 additional oversight. All for it. Yeah, I'm all for it.

25 Q. But you -- I guess, when you -- or when you get -- do

1 you get SAFOs as a POI?

2 A. I do.

3 Q. Are you required to take those SAFOs and pass them to
4 your operator?

5 A. Actually, not. Our requirement right now is we have to
6 pass notices to the company. Now, I do -- I, as an individual,
7 pass SAFOs on to the company. But I would like there to be
8 accountability for SAFOs, as well. I would like a formal response
9 from the carrier as to whether this applies or doesn't apply and
10 if it does apply, what are they going to do about it and when.

11 Q. Um-hum.

12 A. Yeah, I'd like to see that because there's a lot of
13 parallel good stuff, parallel to the notices process.

14 Q. Okay. And similarly, there's a SAFO later that year on
15 approach and landing accidents that involved discussion of fatigue
16 and sterile cockpit.

17 A. I vaguely remember that one.

18 Q. Do you recall if that was passed to the carrier or you
19 communicated that to the carrier?

20 A. I believe I did, yeah.

21 Q. What actions did they take in response to that SAFO?

22 A. I don't recall a specific letter of response. We worked
23 through, I think, FOPPM changes to incorporate that. As far as --
24 I believe we talked about sterile cockpit. We had some
25 modification to sterile cockpit, we had some modification to

1 stabilized approaches. I think those are the two main things that
2 we worked on.

3 Q. Okay. What concerns to you have at this time concerning
4 sterile cockpit at the airline?

5 A. Well, you know, we provided a briefing on the essence of
6 the accident and I stand here, sit here, appalled at what I
7 understand to be apparent total breakdown in crew discipline as
8 far as when checklists are done, when mandatory briefings and
9 discussions about how we're going to attack the airport or how
10 we're going to attack the approach, standard calls.

11 So I have a concern that any crew could have a big --
12 what I would characterize as a major human performance bad day or
13 omission. So you know, that's a concern I have, but having said
14 that, the reason I guess I'm particularly concerned is because our
15 surveillance has been very positive to the contrary with this
16 company. So you know, if there were a way we can predict when
17 somebody's going to deviate greatly, I wish we could find that for
18 the entire industry.

19 Q. As far as the surveillance prior to the accident in the
20 year that the airline's been -- or aircraft has been on line, have
21 there been any indications, through your surveillance, that there
22 are problems with adherence to standard operating procedure?

23 A. I would say nothing out of the ordinary, nothing -- no
24 trend of dots to connect. It can be something as minor as the
25 crew's taxiing out, is the taxi check visible or not visible on

1 the left side of the cockpit.

2 Q. Um-hum.

3 A. Is the crew proceeding or stopping to get directions
4 before they taxi in an unfamiliar taxiway. In-flight, we have not
5 really seen much in the way of deviation at all. We've seen some
6 ground issues. Did a crew deice while other people weren't
7 deicing, those sort of things. But mostly -- but that's mostly
8 some scattered ground events with no common tie. So if there were
9 a monitoring device that we could use, as an industry, to make
10 sure everybody's adhering to sterile cockpit and checklist
11 discipline and so forth, I'd love to see it.

12 Q. And are you answering the second part of my question or
13 a question that I haven't asked, which is in the past year
14 anything come through the surveillance activities that you've been
15 doing showing any issue regarding sterile cockpit adherence?

16 A. Haven't really seen it. I'd have to go back and look at
17 the surveillance findings, but there's nothing that I can recall
18 at this time.

19 Q. Okay. The --

20 A. And let me add to that. It's not just our surveillance.
21 The company has had many surveillance campaigns, as well, and we
22 review -- they share with us what their surveillance findings are
23 and haven't seen that trend at all.

24 Q. Okay.

25 A. We'll see things like, you know, manual, out of date,

1 bulletin not in the right place, that sort of thing.

2 Q. There was a focused -- we were told there was a focused
3 FAA inspection last year, towards the end of the summer, by the
4 FAA. What was that inspection, where did it originate?

5 A. Which one? One at the end of the summer.

6 Q. I guess you tell me. We --

7 A. Yeah.

8 Q. -- heard there was a focused -- it was described to us
9 as a focused FAA inspection towards the end of the summer, 2008.

10 A. Yeah, that was one that took a broad brush. It was
11 inspectors from -- focused inspection that was using ATOS
12 questions about airman duties, flight -- was it airman duties,
13 flight deck procedures? Something like that. And we looked at
14 both the SAAB fleet and the Q400 fleet and the question was, are
15 people adhering to standard -- to SOP. Are they following the
16 checklist, are they using sterile cockpit, are they making good
17 decisions, are they communicating to each other. And it was done
18 by several inspectors in the office. They wanted just a different
19 set of eyes and there were no significant findings on that at the
20 time --

21 Q. Okay.

22 A. -- that I'm aware of.

23 Q. And you said which one. What other focused inspections
24 from the FAA have happened in the last year on Colgan?

25 A. Yeah. There were -- when we became aware of the

1 exceedances issue, we asked the region to send an evaluation team
2 in AA290 to fly on the Q400s in the system and just see what they
3 saw as far as adherence to SOP and the exceedances issue and see
4 how the company was handling that and they came back and on the
5 basis of their recommendations, we got together with the company
6 and did that VMO minus 10 change for IOE. That was -- but they
7 didn't see anything other than that. Those guys had some high-
8 speed jet experience, jet pilot experience, and they had another
9 perspective they could draw from, so --

10 Q. Are there any focus inspection programs ongoing now,
11 after the accident?

12 A. I'd say we just simply have a higher level of
13 surveillance right now. There's no particular focus. We have a
14 higher number of inspectors out right now and really, it's to make
15 sure we're not missing anything. Everybody's doing their regular
16 ATOS workload, but other inspectors from the office have just been
17 sent out on the SAAB or the Q400 system almost randomly, just an
18 increased tempo, that's all.

19 Q. What information do you have or what knowledge do you
20 have as far as the most recent IOSA and DoD audits? Any findings
21 in the area of flight operations?

22 A. If it's IOSA, the IOSA audit had about 600 findings, but
23 a lot of them were minor company specific things like putting your
24 manual or require that the station people speak English, that sort
25 of thing and they have to fix that. Not aware of any major -- I'm

1 not aware of any major findings from IOSA in flight ops procedures
2 or training, but we don't get a copy of that report. Ironically,
3 we authorize them to be in the jump seat, but we don't get a copy
4 of that report. What was the other question? DoD?

5 Q. DoD, yeah.

6 A. DoD has -- in the three years I've been there, they've
7 never had any operations findings. Their big issue is internal
8 evaluation. That's a DoD requirement, it's not yet an FAA mandate
9 although with ATOS, it almost becomes one because now we're
10 basically saying what's your process measurement and by default,
11 internal eval becomes the process measurement.

12 We are aware that -- you're talking about the recent DoD
13 action? DoD basically recently simply, as a precaution, we think
14 put the carrier in nonuse, but there was no particular finding,
15 any inspection finding, that caused it. I think it was just a
16 precaution.

17 Q. Okay.

18 A. So they've never, in all the three years, have never
19 assign any particular operations line oriented issue.

20 Q. What is -- I guess, does Colgan have a fatigue risk
21 management program?

22 A. I would say -- the only thing I'm aware of is a policy
23 by which if a pilot says they are fatigued, using the F word,
24 they're supposed to be pulled from the line without any coercion.
25 Now, how well does it work? I'm not a Colgan pilot, never tried

1 it myself. I'd be interested to hear, as time goes on, what the
2 union's experience with that is now that there's a union. Am I
3 concerned about -- I'm concerned about any, any pilot fatigue.

4 I'm aware that pilots commute, for example. I know they
5 get up early and they -- and I know that any regional airline
6 tries to be as productive as possible with its folks and I'm
7 always concerned about that. I have no particular, nothing
8 particular to hang my hat on as far as any trends go, though.

9 MR. BYRNE: That's all I've got for now. I'll have some
10 follow-ups later.

11 MR. COX: Okay, Gene.

12 BY MR. CONWAY:

13 Q. Okay. Doug, you've answered some of my questions on
14 this crew tracking and whether it's adequate. I'm understanding
15 you to say that your personal preference would be keep all the
16 paper records, retain them, as opposed to --

17 A. Yes. The FAA, in its guidance, in the 8900 guidance,
18 says the company can transition from a paper -- to a paper to an
19 interim -- how do I say -- type program, computer backed up by
20 paper and then finally just computer. And the training records,
21 the handwritten training records are basically considered as job
22 aids with this company.

23 So if it turns out, with our collective wisdom, that we
24 should keep more source documentation about failures, people on
25 special tracking, even first office evaluations, I would have no

1 objection to that, at all.

2 Q. What about even beyond pass/fail, what about comments?
3 I mean, certainly, when consideration of making a new check airman
4 comes along, one -- do you think that it's particularly helpful to
5 have comments about performance? It could be partly a scaled
6 thing, I'm thinking, because as you know with my Delta background,
7 it was a 1 through 5 grading scale, with 2 being sat, but the
8 other parts of the scale giving a lot more information about
9 performance and amplified by subjective comments.

10 A. I'm all in favor of a more complete -- retention of more
11 complete records of first officer evaluations, any kind of
12 training comments. I'm all in favor of that.

13 Q. That's great to hear. Something that's a sore subject
14 to many, but now is -- I've learned has considerable support from
15 ALPA is the FOQA program. In fact, one of the recent ALPA
16 publications focuses on this very subject. With the capability on
17 a Dash -- on the Q400, the flight data recorder in particular, but
18 also with respect to voice recorder samplings, what's your feeling
19 on whether that they can be accomplished possibly in conjunction
20 with ALPA on -- obviously, on a non-punitive basis to determine
21 exactly what really is happening?

22 A. I will just simply say that the subject -- two things.
23 FOQA is just starting in this company. They're just getting set
24 up for it and we have seen no data yet. I think, personally, I'd
25 rather -- I'd like to see a system where you can have FOQA and CVR

1 information reviewed by a joint panel just like ASAP. I think
2 there should be a FOQA/ASAP event review committee. In fact, I
3 think the ASAP review committee should review FOQA information. I
4 think they should have access to CVR information and what we're
5 getting to here, though, to respond to the other part of your
6 question is the topic of CVR sampling, routine random CVR sampling
7 on flights where there's no check airman or FAA inspector is
8 something we're talking about with AAI as a possible safety
9 recommendation.

10 Q. As you, yourself, have pointed out, do you -- what you
11 found out post-accident did not -- it seemed to blindside you
12 based on the sampling you had done before.

13 A. Yes.

14 Q. Would you think that the lack of really being able to
15 have eyes and ears inside one there is no check airman because we
16 know what happens when there is a check airman might be part of
17 that blindsiding?

18 A. Oh, of course. I mean, any time any one -- something
19 that seems to come out of the blue, it's a surprise for -- of
20 course, the FAA and the industry have not come to terms yet about
21 this monitoring, so I'm -- there's always -- there are always
22 folks that would like to see more and some want to see less, so we
23 know this accident -- I'm sure this accident will play in that
24 debate.

25 Q. I'm sure you're right. Doug, what about the

1 standardization of check airmen? Your cadre of check airmen is
2 obviously growing or certainly up until very recently when the
3 expansion may have stalled for hopefully just a little while, but
4 that's quite a cadre that you have and relatively new,
5 standardization is always a challenge. Do you have thoughts on
6 how you oversee that standardization now especially that you have
7 APDs and possibly you have the capability to have shepherding,
8 some sort of a shepherding methodology of check airmen simulator,
9 in particular, check airmen assigned to a shepherd APD status or
10 maybe higher who is intimately familiar with the details of
11 training and training processes procedures, the techniques?

12 A. So the question is how can we promote check airmen
13 standardization?

14 Q. Amen.

15 A. All right. Colgan does it, the standard industry
16 practices with FAA encouragement, so we mention the check airmen
17 meetings which are periodic. The check airmen meetings as held by
18 the flight standards department. The flight standards department
19 has -- this has a very -- this company has a very proactive flight
20 standards department as far as putting out a flight standards
21 newsletter.

22 So they put out a newsletter to -- things for check
23 airmen to watch, things for line pilots to watch, trends we're
24 seeing, new things going on, new programs starting to happen, ops
25 specs changing. So I'm putting a lot of stock in that to get

1 people's attention. Our APMs have a good interaction with the
2 check airmen and with the APDs who they directly supervise. We
3 only have three APDs; Tim's one of them. We're not doing a lot of
4 type ride work right now. I say we, they are not doing a lot of
5 type ride work, there's not a whole lot of volume of that right
6 now. So there's opportunity for APDs to do some shepherding,
7 mentoring, but primarily do that at the meetings.

8 One concept that some airlines do is they assign
9 administratively or spiritually, they assign check airmen to
10 certain APDs so instead of having a group of 20 check airmen with
11 no particular mentor, you have a check airman with -- we have
12 maybe six with one and we have about 20 check airmen right now,
13 line check airmen, sim check airmen and so forth.

14 So I think there's some -- I think we can encourage
15 that, certainly. I am hoping that the fleet advisory board
16 concept is going to lead to a more formal mentoring, as well. My
17 vision is that check airmen would be invited to sit on the fleet
18 advisory board for six-month periods and listen to the issues
19 about the manuals, the procedures, the training, the technical
20 aspects of the airplane and cycle out again back into the field,
21 and that we spread our ability to watch the training program,
22 watch the technical aspects of the airplane, watch the CFM.

23 So I think there's a little more of an us and them
24 concept right now, headquarters versus people in the field,
25 particularly because the people in the field are in Newark. I

1 think the company, this company, can do more to drag people out of
2 the field and take them to headquarters and be on this board and
3 cycle them back out again. That's not a regulatory thing, of
4 course. I think it's just a good practice that we're pushing for.
5 Those are things that strike me right now.

6 One of the things that the company is not shy about
7 doing -- you're talking about standardization of check airmen.
8 One of the things that they do is every -- all the check airmen
9 are on an e-mail collective and they have blitzes occasionally.
10 They'll do a weekend or three-day blitz and make sure everybody's
11 doing this or this, following the new checklist change.

12 They'll assign maybe five to six check airmen to Newark
13 for a weekend and hit every single flight at the end of three
14 days, every single crew. That's mostly pilot standardization as
15 opposed to check airmen standardization. And obviously, Mike does
16 -- the APMs, they do their regular routine surveillance. They
17 watch a check airman, you know, every two years. The company
18 watches them in the off year, we watch the APDs every year as a
19 minimum.

20 Q. Um-hum.

21 A. So the minimums are done, certainly.

22 Q. My thoughts being that nobody can see what a line
23 captain's doing better than another line captain, nobody can see
24 what a sim check airman -- a sim instructor is doing better than
25 another sim instructor who is charged with that responsibility,

1 dotted "i," crossed "t" critique.

2 A. There's another thing that's coming right now and that's
3 the LOSA auditor and these are line pilots who are trained as
4 auditors by the internal evaluation department. They're not check
5 airmen, they're just watching to see how things are done. And so
6 -- we only have one right now. We'd like to see them expand the
7 number. They actually work for the safety department, so --

8 MR. CONWAY: I think that's about it and thank you very
9 much.

10 MR. COX: All right, let's switch to Mike.

11 MR. WICKBOLDT: Doug, I don't have any questions for
12 you, but I look forward to working with you --

13 THE WITNESS: Good.

14 MR. COX: Tim?

15 MR. DITTMAR: I don't have any questions right now.

16 MR. COX: Let's move to Ken.

17 MR. WEBSTER: I'm good. No questions for me, thank you.

18 MR. COX: And Harlan?

19 BY MR. SIMPKINS:

20 Q. I just have a couple of clarifying questions. Doug, you
21 mentioned that initially you were using the manufacturer's Part 61
22 training program.

23 A. Yes, I -- yes.

24 Q. I'm not aware of any Bombardier training program. Can
25 you expand on that or are you speaking specifically the

1 FlightSafety Part 142 training center approved training program?

2 A. Right. We're talking about Part 61 non-carrier specific
3 type rating versus the 121 carrier specific type rating. So --

4 Q. Okay. And if you can just educate me on the Bombardier
5 process involved on that or is this specifically a FlightSafety
6 produced training program?

7 A. Well, we were simply told, Harlan, that when a customer
8 buys an airplane, they get so many training entitlements and this
9 company had 15 airplanes, they got 60 training entitlements and
10 the chose organization to -- that Bombardier uses is FlightSafety
11 and FlightSafety has a series of course ware which are based on
12 the Bombardier manuals.

13 Q. Okay.

14 A. And we presume, I never really asked, I presume that the
15 training syllabus is based on something recommended by Bombardier.

16 Q. Okay. Are you aware, did Bombardier conduct any of the
17 ground training?

18 A. FlightSafety conducted the training in Toronto.

19 Q. Okay. And -- simulator training or checkrides?

20 A. They did not. FlightSafety conducted -- they were
21 deputized as contract check airmen by our office and did the
22 initial, the first phase of checkrides.

23 Q. Okay. And are you aware did Bombardier approve or
24 certify any of this ground syllabus training or simulator syllabus
25 training?

1 A. I don't know if they certified it. My assumption is
2 that Bombardier was intimately involved with FlightSafety in
3 recommending the course of training.

4 Q. Okay. You were mentioning that you're not aware of any
5 guidance regarding approach speeds for the Q400 in Colgan
6 material. Are you familiar with the Bombardier QRH?

7 A. Yes.

8 Q. Specifically, do you -- have you seen -- I guess, on
9 Page 310, the landing minimum V ref speeds, minimum approach
10 speeds and minimum go around speeds?

11 A. Can't quote them right now.

12 Q. Okay, but are you aware of that chart that provides
13 approach speeds?

14 A. Vaguely.

15 Q. Okay.

16 A. Can I ask you a question on that because I'm trying to
17 paint a picture here. Are we showing -- are they talking about
18 decreasing ref speed as you lower flaps or are we talking about a
19 buffer speed above a ref speed? I can't recall what that --

20 Q. There is -- on the chart, there's a minimum V ref speed
21 for your landing flap, whether it be 15 or 35.

22 A. Right.

23 Q. Coincident with that, if you were to land Flap 15, you'd
24 approach at either Flap 5 or Flap 10. If you're landing Flap 35,
25 you'd approach Flap 15. So the chart gives you what the approach

1 speed should be for a Flap 15 approach and then the V ref speed
2 for a Flap 35 landing --

3 A. I'll make sure we --

4 Q. -- are different speeds.

5 A. I'll make sure we incorporate that chart into our
6 discussions about the descent profile review. Thank you.

7 Q. Okay. And just those speeds are the minimum approach
8 speeds, so anything above that, obviously increasing your speed
9 flying in the Newark area wouldn't be covered in that but it is
10 the minimum approach speed required for approach and then a
11 minimum V ref for landing. There's going to be some changes in
12 the simulator training for Colgan regarding unusual attitudes and
13 stall and demonstration of a stick push. Are you aware of any of
14 the limitations currently in the simulator modeling, limitations
15 in a data package beyond stick shaker?

16 A. Yes.

17 Q. Okay, will that be incorporated into the training or
18 made aware to the flight crew that it may not be realistic?

19 A. Yes. And we're going to tell them that in -- yeah, the
20 instructor guidance will be to inform the student that the
21 modeling has a certain threshold beyond which it may not be
22 totally realistic.

23 Q. Okay, perfect. Just my final question was you made a
24 comment about up until this accident your opinion has changed or
25 since the accident of the professionalism of the flight deck. I'm

1 just wondering, were you a part of the CVR team?

2 A. No.

3 Q. But you did mention that you got a briefing or you heard
4 a characterization of the CVR?

5 A. We heard a briefing of the high points of the CVR by the
6 AAI organization.

7 Q. Sorry, what's AAI?

8 A. The Office of Accident Investigation, party to the
9 investigation, and they routinely do that if there's a party with
10 a need to know, like they consider the POI a party with a need to
11 know.

12 MR. SIMPKINS: Okay. I have no further questions.

13 Thank you.

14 MR. COX: Evan, did you want to --

15 BY MR. BYRNE:

16 Q. Just a couple follow-ups. Did you know Captain Renslow?

17 A. No. I think I saw him at a ground school class once. I
18 was -- I believe he was in -- I can't remember what class it was,
19 but I believe I was monitoring a ground school class. I think I
20 met him once, but beyond that, that's it.

21 Q. And what about First Officer Shaw?

22 A. Never met her.

23 Q. How often do you do line observations?

24 A. I do line observations fairly infrequently, but I do go
25 to the simulator every quarter.

1 Q. And as far as the -- you mentioned -- when we were
2 talking about fatigue management and commuting pilots, are you
3 aware or I guess, what, to your knowledge, is the operator doing
4 with respect to folks sleeping in the -- pilots sleeping in the
5 crew room at Newark?

6 A. Not aware they're doing anything about it.

7 Q. Do you know whether pilots are or are not overnighiting
8 in that crew room?

9 A. After this accident, I heard a report that that had been
10 going on.

11 Q. Who did you hear the report from?

12 A. Can't remember. Can't remember.

13 Q. And I guess, how would you characterize safety culture
14 at Colgan?

15 A. I would say the safety culture is more reactive than I'd
16 like to see, not quite as proactive. They're cooperative when
17 they react. Are they as forward looking in risk management,
18 anticipating everything? I'd like to see more pro-activity. But
19 you see that with a more mature organization. Major air carriers
20 have very mature safety cultures. Sometimes they get over-
21 complacent.

22 Q. What needs to happen at Colgan to move it from where it
23 is now to where you want to see it?

24 A. It's no secret. We'd like to see more middle management
25 staffing to make programs come forward, to be able to do more

1 monitoring, to be able to effect change. We think that the
2 adoption of fair culture into ATOS and more of an SMS model will
3 kind of force them to be more proactive in creating change and
4 monitoring and that's a bit of an evolution right now that they're
5 in the middle of right now, but haven't really -- with our phase
6 right now, the phase that they're in right now, they haven't --
7 they're just putting their toes into an SMS type of culture, but
8 nothing formal yet.

9 Q. And you mentioned earlier the concept of feedback
10 reporting from pilots and the relative lack of that. Is that a
11 knowledge issue or is that a cultural issue?

12 A. We don't know. This is a question we've raised. We
13 know that the reporting methods are advertised in initial and
14 recurrent ground school. We've gotten occasional calls from
15 pilots, occasional calls. We -- no, we haven't quite cracked yet
16 as to why there's not more feedback. I'm just saying, we're
17 hoping, with the union's participation and some of these boards,
18 we're going to hear more, more insight.

19 MR. BYRNE: Okay, thank you.

20 BY MR. COX:

21 Q. Okay, Doug. We've been around the table and I think
22 we're pretty close to finishing except that there's one topic area
23 that I still want to get into. During the course of our
24 interviews, we've talked to an awful lot of people at Colgan and
25 talked a lot about a specific subject which is the subject of

1 training on tail stalls.

2 In your recurrent training classes at Colgan, they have
3 one or more videos, we've heard up to three, in which the subject
4 of tail plane icing on turbo prop airplanes is discussed and there
5 is a recovery method which is discussed on the video and the
6 recovery procedure, we're told, does require the crew to recognize
7 the tail stall phenomenon and then to apply a recovery procedure
8 that is not consistent with a normal stall recovery.

9 A. Um-hum.

10 Q. So we've explored that in a lot of depth and we've asked
11 a lot of people questions and so I don't think we need to revisit
12 all the aspects of that whole thing, but I wanted to know was
13 first of all, are you familiar with what I'm talking about?

14 A. Right, um-hum.

15 Q. And then second, in your view, as the POI, is this
16 subject something that you think was appropriate to be included in
17 the recurrent training program at Colgan and if that is the case,
18 how do you think that that training video should be integrated
19 into the operating procedures, the simulator training and the
20 manuals that the company has?

21 A. Well, it's not integrated with the simulator training.
22 It's a general -- sort of thing in ground deicing. AAI already
23 called our attention to this and so the temporary risk control
24 we've done is to have the instructors stop at that point and say
25 and here's something for general interest which can happen in

1 turbo prop airplanes. It is not a characteristic of the SAAB or
2 the Q that we've seen so far and we're not suggesting any -- and
3 they -- their going on to say and we're not suggesting any -- that
4 you do any particular procedure based on what you see in this
5 video. This is general awareness.

6 At this point, I'm not convinced we should take it out,
7 but I believe it should be a risk control and I'm aware -- part of
8 the briefing we had was the action of the first officer in just
9 retracting the flaps apparently un-commanded and before any
10 semblance of control was apparently gained so of course, that
11 would be totally non-standard.

12 I have a difficult time thinking anybody be in that
13 situation where apparently the airplane was -- they were really
14 fighting for control, the person was actually able to go back to a
15 stall to a tail plane icing video and say aha, this is what I'll
16 do. I find it a difficult thing somebody could have the presence
17 of mind to do that, but I understand that people do revert to the
18 law of primacy. They tend to revert to what's first learned, so I
19 understand that. I'm not fighting that concept.

20 There may be folks, and maybe Bombardier can help us
21 with that, to say hey, no way, no how are you going to get into a
22 tail plane stall on this airplane. We should definitely pull
23 that. And that's beyond my technical expertise. I guess I tend
24 to be more of let's be more inclusive rather than exclusive. I'm
25 always afraid we're going to miss something. But maybe less is

1 better here.

2 So I'm quite open to that. But right now, the interim
3 risk control is to show it with the instructor stopping and if
4 that's too in-elegant, we'll probably just chop it.

5 Q. Well, one of the questions we've had that we couldn't
6 resolve is the genesis of this training, that is when was it first
7 introduced into the recurrent training curriculum and by whom and
8 where did it come from?

9 A. Well, I'm sure it was there when I was -- when I first
10 showed up. We don't approve all of the training curriculum. We
11 -- I'm sorry. We don't approve all the course ware. We review it
12 routinely. We look at course ware probably around three times
13 ourselves. We look at them routinely when we are -- when our APM
14 is going through initial or recurrent. If something strikes them
15 as not good, they'll raise their hand at that time to me and the
16 Director of Training.

17 Number two, if there's a new curriculum and the Q400
18 came along, they really didn't change any of the deicing video.
19 They didn't present it to me as a change, they just said they were
20 going to continue doing this and I didn't think twice about it
21 because of general background. Number three, again, if we're
22 doing a routine monitoring of a class that's where we would look
23 at it.

24 So I cannot tell you right now as to when exactly that
25 video got into the system at all, but I will tell you that the

1 reason I'm amenable to it is probably my personal background, flew
2 the Jetstream, that had a tail plane icing issue with the airplane
3 pitching down on final with flaps extended to 35 or whatever it
4 was, 35 to 50. I know that was changed by the manufacturer. We
5 know the YS11 had the issue, the MU2s had the issue.

6 So at what point are we saying -- I mean, I haven't
7 heard -- and I was involved in the tail plane icing task force
8 that AFS200 had a few years ago and nobody really ever turned us
9 off from that tail plane icing awareness. There's been no signal
10 to us in the field saying hey, if the airplane doesn't have it,
11 don't do it.

12 If this is the signal we're going to get, that'll be
13 great. I mean, a recommendation would be appropriate if we think
14 this is negative training. Now, I think it's a great thing that
15 we have -- we apparently have airplanes now where this is not a
16 characteristic, but that hasn't -- had not been signaled to us
17 before, really, as a species of, you know, POI, so we want to keep
18 an open mind on that.

19 Q. So then, finally, to your knowledge, has the FAA, anyone
20 within the FAA, ever take the information that's originally
21 developed by NASA, when they did this research and when they
22 created this video, and say do we need to do an assessment by type
23 aircraft and by circumstance in order to determine what additional
24 training should be done, if any?

25 A. I'm not aware they got to that detail, not aware they

1 ever got to that detail. I've been in this game a few years and
2 you know, I would've jumped on that. I would -- we're always
3 looking for more specific guidance on everything, so --

4 MR. COX: Great. Good answer. I appreciate that. I'm
5 satisfied.

6 (Whereupon, the interview in the above-entitled matter
7 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: CRASH OF CONTINENTAL CONNECTION
 FLIGHT 3407, OPERATED BY
 COLGAN AIR, INC.
 FEBRUARY 12, 2009, 2217 EST
 CLARENCE, NEW YORK
 Interview of Douglas Lundgren

DOCKET NUMBER: DCA-09-MA-027

PLACE: Washington, D.C.

DATE: March 17, 2009

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

Timothy Atkinson
Official Reporter