

OFFSHORE HELICOPTER SAFETY INQUIRY

November 3, 2009

Tara Place, Suite 213, 31 Peet Street

St. John's, NL

November 3, 2009

PRESENT:

**John F. Roil, Q.C./
Anne Fagan.....Inquiry Counsel**

**Amy Crosbie/ Canada-Newfoundland and Labrador Offshore
..... Petroleum Board (C-NLOPB)**

**Ian Wallace/ Hibernia Management and
Cecily Strickland..... Development Company (HMDC)**

Denis Mahoney/D. Blair Pritchett..... Suncor (Petro-Canada)

Stephanie Hickman. Husky Oil Operations Ltd.

Paul Barnes Canadian Association of Petroleum Producers (CAPP)

**Laura Brown Laengle/
Rolf Pritchard..... Government of Newfoundland and Labrador**

Mark FreemanDepartment of Transport Canada

Norman J. Whalen, Q.C./ Mike Cohen Cougar Helicopters Inc.

Jamie Martin.....Families of Deceased Passengers

**Kate O'Brien.....Davis Estate (Pilot) and
..... agent on behalf of Douglas A. Latto for Lanouette Estate (Co-pilot)**

**Randell Earle, Q.C..... Communications, Energy and Paperworkers Union
..... Local 2121**

David F. Hurley, Q.C. Offshore Safety and Survival Centre, Marine Institute

TABLE OF CONTENTS
November 3, 2009

MS. KIMBERLEY TURNER (CONT'D)

Clarification by Ms. Turner.....	Pgs. 1 – 9
Examination by Kate O'Brien.....	Pgs.9 – 65
Re-examination by John Roil, Q.C.....	Pgs. 65 - 77
Examination by The Commissioner.....	Pgs. 77 - 90
Certificate	

Page 1

1 November 3, 2009

2 COMMISSIONER:

3 Q. Good morning, ladies and gentlemen. Now, Ms.

4 O'Brien, you were about to ask some questions,

5 weren't you?

6 MS. O'BRIEN:

7 Q. Yes.

8 COMMISSIONER:

9 Q. Before you do, I'm told that Ms. Turner wanted

10 to clarify a couple of things, so I'll ask her

11 to do that now.

12 MS. TURNER:

13 A. Thank you, Commissioner, and good morning.

14 One of the areas that we discussed yesterday

15 very late in the question pace was this topic

16 of crew resources management, and I just

17 wanted to spend a minute or two just providing

18 a little bit more information about that

19 safety discipline within aviation and how it

20 possibly could apply within the context of the

21 passengers and the workforce that travel in

22 the back of the aircraft. The definition

23 around crew is fairly well defined and is very

24 descriptive within the aviation regulations.

25 So when we referred to crew, it really is the

Page 2

1 actual licensed crew, the pilots, or in the

2 cases of some other sectors of aviation,

3 licensed air crewman or observers that have a

4 formal role within the aircraft. So one of

5 the areas I wanted to clarify this morning was

6 as a passenger, the terminology of crew

7 resource management might not necessarily be

8 the best fit. However, there has been an

9 adaptation of CRM for those people who are

10 involved in aircraft flying, but not

11 necessarily with that formal role, and the

12 term that's often used there is team resource

13 management. So there's an acknowledgement

14 that other people that may be in the aircraft

15 could have a significant role to play if

16 there's an identification of something

17 abnormal or unusual or not familiar. The goal

18 of this type of training, regardless of what

19 it's called would remain exactly the same and

20 ultimately if this application was to be

21 considered for the passengers, it would really

22 come down to the purposes to provide knowledge

23 on aviation hazards, so that the passengers

24 are very familiar with what is normal and what

25 is not necessarily normal. One of the areas

Page 3

1 in risk management is really being able to

2 identify where you may step outside the

3 boundaries of those nominal or normal

4 conditions, and those triggers of when it

5 steps outside is really then a trigger to

6 reassess from a risk assessment perspective.

7 The real goal of applying these concepts and

8 principles would be to empower the passengers

9 that if they saw something or were

10 uncomfortable with something, that they

11 actually understood the right protocols as to

12 how to raise that in the aircraft environment,

13 and I just wanted to give you an example and

14 we all have probably experienced travelling

15 commercially and certainly I've got a lot of

16 air miles and have a high exposure being a

17 frequent flyer, but I was on a flight about

18 three years ago and it was a 747 and it was a

19 long haul flight overseas, and I was sitting

20 there as a passenger and just in the overhead

21 lighting there started to drip some orange

22 liquid and it wasn't a big flow of liquid, but

23 it was just this drip. I sat there as a

24 passenger and I thought that doesn't seem

25 right, and I had no technical knowledge of

Page 4

1 these aircraft, I wasn't a crew member, and

2 certainly didn't have a formal role in the

3 operation of the aircraft, but I was someone

4 who had observed something that wasn't quite

5 right, and certainly being a professional in

6 the aviation safety and risk field, I probably

7 know a lot more than others in terms of what

8 is normal and what isn't, and I sat there and

9 even I contemplated not saying anything, and

10 after a while, you know, I was watching this

11 for a little bit, I thought really I had this

12 conviction that I needed to speak up and say

13 something, and so I went and flagged down a

14 flight attendant and came down and I said,

15 look, excuse me, can you see that kind of

16 liquid dripping, that orange liquid, it

17 doesn't look right, and she said, oh, thanks

18 for that, and then went away. Within about

19 five minutes the aircraft captain, the pilot,

20 was actually down sitting there in my aisle

21 looking and examining what was going on. Now

22 as it actually turns out, about three rows

23 ahead of me somebody had a backpack and had

24 some orange pop in their backpack and the lid

25 wasn't turned on properly and it had actually

Page 5	Page 7
<p>1 run down the overhead baggage compartment and 2 was dripping through. So I guess when you 3 look at that situation, did I feel stupid? 4 Really, no, I didn't, because in the case that 5 might not have been orange pop and could have 6 been something a bit more serious, I had the 7 view or I had access to that information that 8 maybe the pilot didn't have or the flight 9 attendant didn't have. So the whole concept 10 of crew resource management or team resource 11 management in the application of people that 12 aren't deemed as licensed crew members is 13 really just to have that situational awareness 14 around hazards and risks, what is normal and 15 what is not normal, and to take it beyond just 16 a gut feeling, or even if it is a gut feeling 17 and something doesn't seem right, that you 18 actually understand the right protocols in 19 that aviation environment as to how to raise 20 that issue and not have a fear of stupidity, 21 and not feel that, you know, you're off beat, 22 and that really comes down to that open 23 culture and that just culture, the no blame 24 culture, to really create the right 25 environment where people feel comfortable and</p>	<p>1 looking at the adaptation of these concepts 2 and looking at the context of the S-92 in 3 light of how many people are on board, the 4 equipment, the suits, the noise, the 5 environment, et cetera, but if these concepts 6 were to be developed and made fit for purpose 7 for that application, you could really design 8 some protocols as to how you would flag. So 9 it wouldn't necessarily be interrupting the 10 pilot. 11 COMMISSIONER: 12 Q. No, but when you land or something like that. 13 MS. TURNER: 14 A. Or something, yeah, and it's really just -- 15 for passengers that fly more often than every 16 now and then, and certainly with the workers 17 going backward and forward to the rigs, there 18 is a higher level of familiarity with aviation 19 practice and helicopter operations, and so it 20 really just comes down to having the knowledge 21 base and the information to be aware and have 22 a good level of situational awareness. Now 23 some people would actually just do that out of 24 interest and some people really love 25 helicopters and get all involved and</p>
<p>1 are empowered to speak up or say something. 2 So there may be an opportunity to explore that 3 further, but I just wanted to provide a few 4 clarifying comments around CRM so that my 5 statement yesterday wasn't misinterpreted or 6 wasn't taken that I was implying that the 7 passengers should be deemed crew and change 8 their classification. 9 COMMISSIONER: 10 Q. Okay, thank you. I might say that we've all 11 travelled by commercial airliner and there is 12 an opportunity to do what you did, which I 13 think was the right thing to do. Mind you, on 14 the helicopters going offshore, you know, you 15 have air protection on, you're in a suit, 16 you're tightly strapped in. The noise is 17 considerable. I think you'd have to think 18 twice about getting -- there are no flight 19 attendants. You'd have to think twice about 20 getting out of your seat and going up to the 21 pilots, not that you wouldn't do it if there 22 was something very serious, but it wouldn't be 23 quite the same as on a commercial airliner. 24 MS. TURNER: 25 A. That's right, and you're very correct in</p>	<p>1 understand the specs and everything around 2 that, and other people may not necessarily 3 self initiate that type of inquisition of 4 knowledge. So there is potentially an 5 opportunity or a concept, just as has been 6 applied with the workers in the powerline 7 industry, or the mining industry, or the 8 firefighting industry, just to have a slightly 9 greater level of awareness of the aviation 10 norms, so to speak. 11 COMMISSIONER: 12 Q. I certainly agree with you, and one thing I 13 have learnt since I've been involved in this, 14 is that a lot of offshore workers have that 15 kind of familiarity. 16 MS. TURNER: 17 A. Yes. 18 COMMISSIONER: 19 Q. With the system which you talk about, and I've 20 heard it in conversation with them and also 21 letters, and I'm sort of going through the 22 points now that have been raised in the 23 various letters that I've received, and I will 24 speak to the group, not today, but later on. 25 MS. TURNER:</p>

1 A. That's good.
 2 COMMISSIONER:
 3 Q. About these -- the thoughts that have come
 4 through. Anyway, thank you, and thank you,
 5 Ms. O'Brien, for the, as it were, interruption
 6 in your questioning. So if you're ready.
 7 MS. KIMBERLEY TURNER - EXAMINATION BY MS. KATE O'BRIEN:
 8 MS. O'BRIEN:
 9 Q. Good morning, Ms. Turner.
 10 MS. TURNER:
 11 A. Good morning.
 12 MS. O'BRIEN:
 13 Q. I'm Kate O'Brien, and I'm here today
 14 representing the family of the deceased pilot
 15 of the Sikorsky 92A crash, as well as I'm
 16 agent for counsel for the family of the
 17 deceased first officer of that flight. As I
 18 understood your testimony yesterday, you're
 19 really an expert who's been retained by the
 20 Commission to assist the Commissioner and this
 21 Inquiry in ultimately getting to its
 22 recommendations, right, and one of the things
 23 that the Commissioner has asked you to do is
 24 to prepare an industry risk profile and submit
 25 that to him?

1 MS. TURNER:
 2 A. Possibly. There's no limitation on that, but
 3 what you find with the industry risk profile
 4 is because it's a strategic view at the higher
 5 level, it doesn't necessarily break up into
 6 individual operational hazards, and so it
 7 really, you know, does compartmentalize quite
 8 nicely. So it'll be interesting to see
 9 exactly how many. The other thing that
 10 actually determines how many risks that you
 11 would put on the list is how far do you want
 12 to go. So do we only look at extreme and very
 13 high risks, or do we look at medium and lower
 14 risks, and normally on an industry risk
 15 profile, you would draw the criteria at the
 16 high basket. So to really look at the big
 17 ticket items. So if you were to move that
 18 threshold down, you could actually extend the
 19 list, or if you move the threshold up, you
 20 could actually shrink that list.
 21 MS. O'BRIEN:
 22 Q. Okay, I understand, but what I would like to
 23 do is try to give people a bit of a sense of,
 24 you know, what are we talking about here when
 25 we talk about risk. We know that ultimately

1 MS. TURNER:
 2 A. Yes, that's correct.
 3 MS. O'BRIEN:
 4 Q. And just if I could break industry risk
 5 profile down to just one sentence, I
 6 understand it that that's going to ultimately
 7 be a document that's going to identify risks
 8 in the offshore helicopter transportation and
 9 will recommend or propose ways of reducing
 10 those risks?
 11 MS. TURNER:
 12 A. That's correct.
 13 MS. O'BRIEN:
 14 Q. And I understood yesterday that you talked
 15 about other IRPs or industry risk profiles you
 16 have done.
 17 MS. TURNER:
 18 A. Uh-hm.
 19 MS. O'BRIEN:
 20 Q. That the most -- the highest number of risks
 21 that you have ever identified is 26. So we're
 22 going to be looking at ultimately here in a
 23 ball park number of something in the range of
 24 25 or less risks that you will ultimately
 25 identify?

1 you're going to come up with a certain number
 2 of risks.
 3 MS. TURNER:
 4 A. Yes.
 5 MS. O'BRIEN:
 6 Q. And I know -- I'm not asking you today to tell
 7 me what those risks are going to be, but I
 8 think people would like to have a little
 9 better idea of what exactly it is we're
 10 talking about here. For example, is a risk
 11 simply that a helicopter ditches and crashes,
 12 is that a risk, or is the risk that a part on
 13 that helicopter fails and as a result the
 14 helicopter crashes, or that there's a security
 15 breach and a passenger gets on that plane who,
 16 you know, commands the flight and then we
 17 have a crash. I mean, can you give people
 18 watching some idea what it is you're looking
 19 at?
 20 MS. TURNER:
 21 A. Sure. Now just to use or reference those
 22 three examples that you just gave, because as
 23 you're talking I'm pigeonholing where you
 24 would actually plot that information back on
 25 the structure of the industry risk profile.

Page 13	Page 15
<p>1 In terms of an aircraft crash, so to speak, 2 that's actually a consequence or an outcome of 3 a pre-existing risk or a series of risks as we 4 talked about yesterday. So on an industry 5 risk profile, you wouldn't necessarily see the 6 risk of a crash. What you would see is some 7 of those process or structural things that may 8 have failed that could potentially lead to the 9 environment where that could occur. So the 10 reason why I say that, and this is getting 11 into some of the technical nuances of how you 12 present risk information, it's really looking 13 at the why things occurred, so -- and you 14 start looking backwards. So ultimately the 15 consequence or the event that we're trying to 16 prevent is an accident, and so you would work 17 back and say, well, why would an accident 18 happen. So there's a range of different 19 reasons why that would happen, and then in an 20 industry risk profile we actually take it back 21 another layer and say, well, why would those 22 things happen, and sometimes you'll even go 23 into the fourth or fifth or sixth level to 24 really get to the root cause of some of these 25 systematic issues, but in just going through,</p>	<p>1 process for actually counting passengers for 2 getting on board. Now we all know and I'm 3 sure we'll hear testimony over the next couple 4 of weeks that those processes are very well 5 defined, they're very structured, and, you 6 know, they're in place, so those barriers 7 would be there. At an industry risk profiling 8 level, if issues did exist in those type of 9 procedures, they would be put into the 10 process, but it may not necessarily transpire 11 into that event on the list, but we'd get 12 into, well, why has that happened, why has 13 that happened. So it's all about really 14 understanding where the information fits. Now 15 to go back to your original question of what 16 type of risks could we anticipate in an 17 industry risk profile, if you look at the 18 structural model of the industry risk profile, 19 this actually gives you some clues as to what 20 types of things may be looked at. In terms of 21 the system profile, and I'll start there, one 22 of the areas may be examining the safety 23 management system because the assumption is 24 that an SMS actually does help you effectively 25 manage your safety exposure and your hazards,</p>
<p>Page 14</p> <p>1 say, that example of a passenger had a 2 security type issue, that would very much be 3 that operational end. So I might just 4 reference back to a couple of the slides so 5 you can see how these concepts actually apply 6 into practice. Okay, so say if we were to 7 just look at this swiss cheese model. In 8 terms of a passenger and there's a security 9 breach and someone manages to get on the 10 helicopter that may not be legitimate, or 11 there might be a security incident in flight, 12 that really is at that operational level 13 because we're looking at the task of boarding 14 an aircraft, flying out to a rig, and coming 15 back. There are already defenses and barriers 16 in place and fairly strong ones about 17 passenger screening, ensuring that people are 18 fit for travel, the actual metal machines, 19 etc, the passenger brief, lining up, jumping 20 on the aircraft. So one of the things that 21 would be looked at at an operational risk 22 level are, are there any vulnerabilities in 23 that system, is there any chance that the 24 process will fail and people aren't checked, 25 or maybe they're not screened, or there's no</p>	<p>Page 16</p> <p>1 and some of those examples we were just 2 talking about in terms of security or in 3 flight issues. So as we examine and we have 4 some dialogue around that safety management 5 system, maybe one of the issues that might 6 come out is we have really good safety 7 management systems, but do they actually 8 integrate and connect appropriately, and if 9 not, does that have the potential for 10 information to be missed or maybe the right 11 information to be moved around for the right 12 decisions. So that's an example of a risk 13 that could actually sit in that area.</p> <p>14 MS. O'BRIEN: 15 Q. So just to interrupt you there, you're saying 16 that one possible risk might be that there's - 17 even though there's an SMS or safety 18 management system in place, it's not being 19 followed properly or it's not effective, so 20 that's a risk?</p> <p>21 MS. TURNER: 22 A. Not necessarily not being followed properly, 23 but it's just does it actually have real 24 utility outside the compliance base 25 requirements to give more, and particularly as</p>

Page 17	Page 19
<p>1 the environment changes.</p> <p>2 MS. O'BRIEN:</p> <p>3 Q. Okay. So looking at your industry risk</p> <p>4 profile wheel there.</p> <p>5 MS. TURNER:</p> <p>6 A. Uh-hm.</p> <p>7 MS. O'BRIEN:</p> <p>8 Q. How you talk about how the data is organized,</p> <p>9 can you give me an example of a risk that</p> <p>10 could come out of the operator profile?</p> <p>11 MS. TURNER:</p> <p>12 A. Yes, sure. In terms of the operator profile,</p> <p>13 yesterday the question was asked would that be</p> <p>14 the aviation operator or the oil company</p> <p>15 itself. My response was, well, let's examine</p> <p>16 both because both are levels of organization</p> <p>17 actually have a role to play. Now in terms of</p> <p>18 what areas are looked at there, we're really</p> <p>19 looking at the organizational risks. So going</p> <p>20 back to this swiss cheese model, it's coming</p> <p>21 up a layer to look at the organizational</p> <p>22 culture, the management structures, the</p> <p>23 processes that are in place for everything</p> <p>24 from running the business through to crew</p> <p>25 selection, through to training, all the way</p>	<p>1 I haven't had the opportunity to go out and</p> <p>2 work with the organization and have a look</p> <p>3 yet, so I'd just be speaking in a generic</p> <p>4 sense, and in terms of company level risks,</p> <p>5 there's a whole range of different things and</p> <p>6 each organization has a different flavour or a</p> <p>7 different bent of what's important there.</p> <p>8 MS. O'BRIEN:</p> <p>9 Q. I understand that, and like I said, it's not</p> <p>10 that I'm asking you now to come up with the</p> <p>11 results of your analysis today.</p> <p>12 MS. TURNER:</p> <p>13 A. Yes.</p> <p>14 MS. O'BRIEN:</p> <p>15 Q. But you have to appreciate that for people</p> <p>16 watching this Inquiry, the information that's</p> <p>17 been presented to date is extremely high</p> <p>18 level, there's lots of talk about risk</p> <p>19 management systems and safety management</p> <p>20 systems.</p> <p>21 MS. TURNER:</p> <p>22 A. Yes.</p> <p>23 MS. O'BRIEN:</p> <p>24 Q. And profiling, and objectives, and for people</p> <p>25 to really understand what all that talk is</p>
<p>1 through to some of the practical oversight</p> <p>2 levels at an operational level. So as I</p> <p>3 mentioned yesterday, there's a number of</p> <p>4 components that sit under that. Some are very</p> <p>5 tangible and some are less tangible. So the</p> <p>6 tangible aspects are some of those processes;</p> <p>7 the less tangible may be the cultural aspects</p> <p>8 there as well.</p> <p>9 MS. O'BRIEN:</p> <p>10 Q. Okay, so I'm going to ask that question again</p> <p>11 because I just wanted you to give me -- I</p> <p>12 understand what kind of data falls under that</p> <p>13 category. You explained that yesterday and I</p> <p>14 did understand.</p> <p>15 MS. TURNER:</p> <p>16 A. Yes.</p> <p>17 MS. O'BRIEN:</p> <p>18 Q. But my question now is for you to give me an</p> <p>19 example of a risk that could be identified</p> <p>20 under that category?</p> <p>21 MS. TURNER:</p> <p>22 A. At this stage, it's a little bit premature for</p> <p>23 me to give an example because I wouldn't want</p> <p>24 that information to be taken out of context</p> <p>25 and implied that these risks exist in Cougar.</p>	<p>1 about some concrete examples would be, I</p> <p>2 think, extremely helpful for people's</p> <p>3 understanding, to make this Inquiry more</p> <p>4 meaningful to them, and so when I'm looking</p> <p>5 for examples, it's really -- it's not to pin</p> <p>6 you down now.</p> <p>7 MS. TURNER:</p> <p>8 A. No, of course.</p> <p>9 MS. O'BRIEN:</p> <p>10 Q. And it's not to sort of suggest to anyone that</p> <p>11 there's a particular problem with Cougar or</p> <p>12 anyone else. It's to give people who are</p> <p>13 watching some sort of example that they can</p> <p>14 kind of go, oh, yes, I get it.</p> <p>15 MS. TURNER:</p> <p>16 A. Yes.</p> <p>17 MS. O'BRIEN:</p> <p>18 Q. And I think that's sort of missing to date,</p> <p>19 for me at least.</p> <p>20 MS. TURNER:</p> <p>21 A. Well, I'll give you an example. Say, if an</p> <p>22 organization was going to expand their</p> <p>23 helicopter fleet. So they currently had three</p> <p>24 aircraft and now they're going to move to four</p> <p>25 or five aircraft. One example that would be</p>

Page 21

1 picked up in an operator risk profile would be
 2 does the organization have formal processes,
 3 because at this industry level it is high
 4 level, as you referred to, it is strategic in
 5 nature, it's not the practical operational
 6 hazards that we would be generally comfortable
 7 with in terms of bad weather, and I'll talk
 8 about suits and things like that, and I'd like
 9 to come back to that, but in terms of, say,
 10 introducing a new aircraft type of expanding a
 11 fleet, what this operator profile would look
 12 at is does the organization have a formal
 13 approach to how that introduction would take
 14 place, do they have formal project management
 15 techniques, or is it just managed intuitively
 16 because, as we know, if you were to -- if you
 17 were to expand your organization by 25
 18 percent, and all the change that goes with
 19 that, one of the areas at this operator level
 20 is wherever there's change, there's risk. Now
 21 this is not safety risk. It's actually
 22 organizational risk, and, I guess, when
 23 there's that turn and that change, what it can
 24 do is destabilize a situation or an
 25 organization and there's no certainty that it

Page 22

1 will do that, it's just the chance. So the
 2 risk management concept is actually working
 3 out could that happen; if it could, how much,
 4 I guess, disruption would take place, how long
 5 would that take place for, and would that
 6 actually have any operational impact. So
 7 going back to that example, if an organization
 8 was to increase their aircraft numbers, the
 9 type of thing that would be picked up would be
 10 looking at whether the organization had a
 11 process to manage those risks and what the
 12 risks were. Would it be that the biggest
 13 challenge would be that they can't necessarily
 14 recruit for more pilots because there's just
 15 not the employment pool to draw from, would it
 16 be that there's going to be a delay in
 17 actually getting pilots trained because
 18 there's a backlog in the simulator training
 19 and so, therefore, you know, do you run with
 20 or without it or will that delay and push it
 21 back for another six months. So really, as I
 22 said, you can dive into these risks and start
 23 to look at that and it really comes down to
 24 that context. So that would be an example
 25 there. Another good example --

Page 23

1 MS. O'BRIEN:
 2 Q. Sorry, I'm just going to go back. Is your
 3 example -- is the example of an identified
 4 risk that there's not -- the process in place
 5 around adding new helicopters, or is the risk
 6 that the much more specific piece, well,
 7 there's not an adequate number of trained
 8 pilots in the employment pool?
 9 MS. TURNER:
 10 A. It would be both, and so just in my dialogue I
 11 probably gave three examples. So one would be
 12 the process.
 13 MS. O'BRIEN:
 14 Q. So that's three possible risks?
 15 MS. TURNER:
 16 A. Yeah, one would be not necessarily having a
 17 process. The other could be the recruitment
 18 of staff. The other could be the simulator
 19 training. So you could see that some are
 20 process orientated, and others are very
 21 specific. As is the case in the industry risk
 22 profile, you'll see the outcome and maybe if
 23 people are interested in having a look at an
 24 example, on the Flight Safety Foundation
 25 website, the helicopter medical industry in

Page 24

1 the USA released a report. That's the only
 2 industry risk profile that we've been involved
 3 in that has been publicly released. These
 4 documents are normally used by a regulator to
 5 help inform their oversight and how they
 6 provide their governance of the organization,
 7 and so when you read the industry risk
 8 profile, I must put a caveat on it, that it's
 9 actually not an easy read. It is a scientific
 10 document with risk information that is there
 11 at a high level. So to the reader, sometimes
 12 it might actually look like they're very high
 13 level issues that aren't tangible; however,
 14 from a regulatory perspective, those things
 15 actually are quite targeted and specific. Now
 16 as we work through this swiss cheese model, if
 17 we were to get into the operator risks and the
 18 operational risks, then you'll find that it
 19 actually becomes a lot more familiar to the
 20 reader who may or may not be involved in
 21 aviation.
 22 MS. O'BRIEN:
 23 Q. Okay. So once we have -- once you have
 24 developed an IRP, an industry risk profile, I
 25 understand you'll be giving that to the

<p style="text-align: right;">Page 25</p> <p>1 Commissioner, and I would assume that his 2 recommendations coming out of this Inquiry may 3 well include the recommendations given in the 4 IRP as to how the identified risks could be 5 minimized. I've got that right? 6 MS. TURNER: 7 A. Yeah, that process is right. I would just 8 make one point, though, in terms of the use of 9 recommendations. An industry risk profile 10 doesn't make recommendations, and it doesn't 11 actually make findings. So it's actually a 12 process of analysis of data and what it does 13 is it identifies issues and it provides 14 proposed solutions or risk treatment 15 strategies. So they're not -- 16 MS. O'BRIEN: 17 Q. But it doesn't recommend them? It proposes 18 solutions, but it doesn't recommend them? 19 MS. TURNER: 20 A. Well, in terms of a recommendation, it doesn't 21 prioritize and give a recommendation. It 22 gives a set of activities that could be 23 implemented. Now if those aren't adopted, 24 there's always alternate solutions that could 25 be implemented to reduce the same risk.</p>	<p style="text-align: right;">Page 27</p> <p>1 Q. Okay. 2 COMMISSIONER: 3 Q. So that the group in this room and the public, 4 for that matter, will have input and comment. 5 MS. O'BRIEN: 6 Q. Okay. 7 COMMISSIONER: 8 Q. So it won't be done in isolation from 9 everybody else. 10 MS. O'BRIEN: 11 Q. Okay. I know, Ms. Turner, yesterday you had 12 one slide and I don't have the slide number 13 here, but it was entitled "IRP Methodology", 14 and in it you -- there was a bullet there and 15 it says, "Over 12 risk identification 16 techniques used". Yes, that's it, you have it 17 up. 18 MS. TURNER: 19 A. That's correct. 20 MS. O'BRIEN: 21 Q. And yesterday when you were testifying, you 22 gave two examples of these risk identification 23 techniques and one of them would be to review 24 to transcripts of this Inquiry? 25 MS. TURNER:</p>
<p style="text-align: right;">Page 26</p> <p>1 That's why we don't go down the path of 2 recommendations. It's actually not within the 3 risk process. Now yesterday in the question 4 time, we talked about whether or not those 5 proposed solutions could be collectively 6 agreed in the drafting process, and that would 7 be the intent, as it is the intent with every 8 risk management plan or risk profile when it's 9 developed, is to look at the practicality of 10 implementation, to look at the accountability 11 of who would roll them out, and to do that. 12 So your comments are correct in terms of that 13 information will be presented for 14 consideration, yet it will not be the findings 15 and the recommendations of the Inquiry. 16 MS. O'BRIEN: 17 Q. But it could form the basis of them? 18 MS. TURNER: 19 A. Yes, or it could inform that process, that's 20 correct. 21 COMMISSIONER: 22 Q. If I might interrupt for one moment to perhaps 23 set minds at rest, whatever comes to me from 24 any consultant will be shared with everybody. 25 MS. O'BRIEN:</p>	<p style="text-align: right;">Page 28</p> <p>1 A. Yes. 2 MS. O'BRIEN: 3 Q. And another one was to have interviews with 4 stakeholders. So I'm wondering now -- that's 5 two out of 12. Can you maybe tell us what 6 some of the other ones are? 7 MS. TURNER: 8 A. Sure. Some of the other risk identification 9 techniques may be conducting an environmental 10 scan on the industry to have a look at what's 11 going on. The reason why you would use an 12 environmental scan is, as I said before, 13 wherever there's change, there's risk, but 14 wherever there's risk, there's opportunity, so 15 by doing an environmental scan, that actually 16 helps you with these triggers of areas of 17 change that can then be assessed from a risk 18 perspective. 19 MS. O'BRIEN: 20 Q. What's an environmental scan? 21 MS. TURNER: 22 A. An environmental scan is, say, when you look 23 at a whole industry and you look at what's 24 going on, what's expected to change in the 25 coming period. So, say, over the next three</p>

Page 29	Page 31
<p>1 years in the offshore oil industry what's 2 expected to happen; is it going to stay the 3 same, or are we expecting new exploration, and 4 basically the easiest way to think about risk 5 management is to actually ask the question, 6 what if, what if, what if, so what. So just 7 applying it to an environmental scan, say in 8 the next five years it looks like there was 9 going to be three new areas of production 10 start up. So we'd say what if that was the 11 case, what if three new sites were actually 12 going to start up, so what, so what does that 13 mean to us, so what does that mean to 14 helicopter operations, so what does that mean 15 to the risk. It might mean that there'll be a 16 need to increase the fleet size, it may be 17 that there's a need to actually re-look at how 18 the aviation operation takes place, it may be 19 that there's a need for additional aviation 20 providers, and then you'd ask the question 21 again, so what, so what does that mean.</p> <p>22 MS. O'BRIEN: 23 Q. Okay. 24 MS. TURNER: 25 A. So that's one technique.</p>	<p>1 MS. O'BRIEN: 2 Q. Okay, other ones? 3 MS. TURNER: 4 A. So another risk identification technique may 5 be to do a causal factor analysis, so -- I 6 know these are all the technical pieces of 7 risk management, and yesterday when I showed 8 the example, I actually said there's a depth 9 of science that sits behind that, and this is 10 where I go into kind of technical mode and 11 start rattling off those various things, but 12 in terms of a causal factor analysis, what you 13 do with all of the data, you basically ask the 14 question, what causes that to happen, and I 15 guess we all, you know, would believe, or many 16 of us would believe that prevention is better 17 than cure.</p> <p>18 MS. O'BRIEN: 19 Q. So when you're talking about data, causal 20 factor analysis of data, are you talking about 21 historical data of events that have already 22 happened in our offshore? 23 MS. TURNER: 24 A. When I say data or information, it would be 25 the collective information that we pool. So</p>
<p style="text-align: right;">Page 30</p> <p>1 MS. O'BRIEN: 2 Q. Okay, and I'm going to ask you to go through 3 some more, but you don't need to do all of 4 them in that sort of detail. 5 MS. TURNER: 6 A. Sure. 7 MS. O'BRIEN: 8 Q. Of course, everyone is going to want to know 9 what you mean when you use a term. 10 MS. TURNER: 11 A. That's right. 12 MS. O'BRIEN: 13 Q. But keep going, please. 14 MS. TURNER: 15 A. Yes, sure. Another risk identification 16 technique might be to do a comparative 17 analysis against better practice or good 18 practice in other offshore oil industries 19 overseas. 20 MS. O'BRIEN: 21 Q. Okay. 22 MS. TURNER: 23 A. So it might be to have a look at what's done 24 here, have a look at what's done in the UK, 25 and basically benchmark.</p>	<p style="text-align: right;">Page 32</p> <p>1 it might be documentation, it might be 2 historical data of incidents or events, but it 3 might actually just be information provided by 4 the organizations about the issues that they 5 continually looked at. 6 MS. O'BRIEN: 7 Q. Okay, that gives us four, I believe -- sorry, 8 five. 9 MS. TURNER: 10 A. Four or five. 11 MS. O'BRIEN: 12 Q. That gives us five, I think, on my list. 13 MS. TURNER: 14 A. Sure. I'm just going through the various risk 15 ID methods. So we've talked about 16 documentation review. Actually, transcripts, 17 so that's one aspect. Documentation review is 18 actually -- or a literature review, they would 19 actually be two different techniques. So a 20 documentation review would actually be working 21 with the organizations and then basically 22 going through a lot of paperwork to have a 23 look at the various systems, processes, 24 structures, and issues that might exist. 25 Another one might be a literature review. So,</p>

Page 33	Page 35
<p>1 I guess, that's a fairly standard technique in 2 research to then look at various papers or 3 journals. Another risk ID method, and we 4 alluded to this and spoke to it a little bit 5 yesterday, is how you actually engage with the 6 broader stakeholder group where there's a lot 7 of people, and we know that the workforce is 8 actually quite large that operates and uses 9 these services. So, I guess, the question is 10 what's the right technique to actually have 11 that dialogue or to collect opinion or 12 perception or information, and so, I guess, we 13 just need to flush that out and look at what's 14 realistic, but certainly having some touch 15 points, whether or not that's a survey or 16 whether or not it's a focus group, there's 17 different methods there. Another risk 18 identification technique is a thing called an 19 RDA, or a risk dimensional analysis, and I 20 apologize, you know, to some because this is 21 really getting into some of the jargony risk 22 management work, but with a risk dimension 23 analysis what you do is you actually start 24 with risk areas, such as environmental risk, 25 safety risk, compliance risk, reputation risk,</p>	<p>1 through to actually undertaking the HUET 2 Training itself. So we'll just agree on those 3 processes and be very happy to communicate and 4 maybe there's an opportunity, Mr. Roil, for 5 some of this to be put on the website at the 6 right time so that people are aware of what's 7 going on if appropriate. 8 MS. O'BRIEN: 9 Q. Okay, and I want to get back to something that 10 you mentioned just then and you did say it 11 yesterday, that one of the things that you do 12 as you're analysing -- 13 MS. TURNER: 14 A. Yes. 15 MS. O'BRIEN: 16 Q. Collecting the data and analysing, is you do 17 look at historical data? 18 MS. TURNER: 19 A. That's right. 20 MS. O'BRIEN: 21 Q. Because even though I understand that the IRP 22 is forward looking and takes that trajectory, 23 looking ahead -- 24 MS. TURNER: 25 A. Yes.</p>
<p>1 maybe the financial risk, and so you would 2 start in those dimensions or categories of 3 risk and you would start to examine those 4 areas within the context of the profiling 5 activity itself. So that's another one. 6 MS. O'BRIEN: 7 Q. Okay. 8 MS. TURNER: 9 A. So how many do we have there, Ms. O'Brien? I 10 think we've got maybe eight or nine. 11 MS. O'BRIEN: 12 Q. Nine, yeah. Are there any other ones you 13 think would be particularly relevant here? 14 MS. TURNER: 15 A. I think at this stage they're probably the 16 ones that come to mind straight off the top, 17 but certainly over the next three to four 18 weeks, this is actually what we'll be defining 19 and we've had some really good dialogue and 20 some good planning sessions with counsel as to 21 what's actually available, and I know that 22 both Ms. Fagan and Mr. Roil have spent a lot 23 of time, you know, out there with the various 24 organizations talking with people, you know, 25 site visits, walk-throughs, even all the way</p>	<p>1 MS. O'BRIEN: 2 Q. One of the pieces that you look at is what has 3 happened in the past, right? 4 MS. TURNER: 5 A. That's right. 6 MS. O'BRIEN: 7 Q. Okay, and so one thing I'm wondering about 8 here in this particular case, where we know 9 that there is this TSB investigation going on 10 -- 11 MS. TURNER: 12 A. Yes. 13 MS. O'BRIEN: 14 Q. And a lot of the historical data has been 15 taken by and is now under the control of the 16 TSB. 17 MS. TURNER: 18 A. Yes. 19 MS. O'BRIEN: 20 Q. And so how do you effectively do the risk 21 management piece that considers historical 22 data when you do not have access to that data? 23 MS. TURNER: 24 A. Two answers to that question. On my last 25 slide, I actually talked about with the risk</p>

Page 37	Page 39
<p>1 profile revisiting the actual profile itself 2 after the release of the TSB Report, and that 3 was for that very reason, as you said, the TSB 4 has access to information that we may not be 5 able to access in this process, and so we'll 6 come back around and actually revisit it 7 there. The other part to my answer is in 8 terms of historical data, we may actually go a 9 little bit broader. Within the aviation 10 industry, incident/accident data is actually 11 widely available after the investigation 12 process is complete. There's safety reports 13 that are released by the equivalent to the TSB 14 around the world, and as we all know, with 15 this aircraft type and fleet, they're operated 16 all around the world and there's various 17 information there. So we'll do a search on 18 what type of incidents or accidents have taken 19 place, and we might do that in two different 20 aspects. One is in the offshore oil industry, 21 period, regardless of aircraft type, and one 22 might be on the specific aircraft type or its 23 variance of that, just to see if there's any 24 lessons learned or any information that would 25 be useful in the process.</p>	<p>1 around the world. It's interesting that the 2 Chairman of the TSB actually addressed that 3 forum in Montreal about a couple of weeks ago. 4 Now what that actually attempts to do is look 5 at compiling incident and accident data from 6 all helicopter fleets from around the world, 7 looking at it by country basis, but also by 8 sectors, be that the offshore oil industry, 9 the firefighting industry, air medical 10 industry, et cetera, and possibly even by 11 aircraft type as that process advances even 12 more. So in terms of how we would access data 13 of what's available, there's a great 14 opportunity to tap into that network and ask 15 the question and see what can be found. 16 MS. O'BRIEN: 17 Q. Okay, so if I can just recap your answer 18 there, the concern -- my concern was that you 19 wouldn't have access right away to historical 20 data -- 21 MS. TURNER: 22 A. Yes. 23 MS. O'BRIEN: 24 Q. That has been taken by the TSB. So you're 25 saying, well, one, we will look at the TSB</p>
Page 38	Page 40
<p>1 MS. O'BRIEN: 2 Q. So you'd be looking at data surrounding other 3 perhaps S-92A incidents in Australia and other 4 places like that? 5 MS. TURNER: 6 A. Yeah, and not just Australia, but I know I was 7 speaking yesterday and actually looking and 8 getting more information about where are the 9 S-92s located around the world, and it's 10 actually amazing, they're in many, many 11 countries, and I won't quote the stats, but it 12 actually surprised me that they were scattered 13 all around the world. So it's not necessarily 14 just in Australia. I think on the chart that 15 I saw yesterday there was only one S-92 in 16 Australia and there's six or so here in 17 Canada, so in terms of volume and numbers 18 you're really looking at global picture and 19 the aviation industry is actually very broad, 20 and I'm not sure if you aware or if the 21 audience is aware, but there has been in the 22 last four years a move to set up the 23 International Helicopter Safety Team. Now the 24 IHST is a global helicopter industry 25 initiative. It's supported by the regulators</p>	<p>1 Report when we get it. 2 MS. TURNER: 3 A. That's correct. 4 MS. O'BRIEN: 5 Q. And sort of do another iteration of our loop 6 to make -- to see if anything else needs to be 7 added, and two, we will look at data beyond 8 this particular industry here in Newfoundland 9 and Labrador and look at data for other 10 similar types of fleets and similar operations 11 elsewhere in the world? 12 MS. TURNER: 13 A. That's right. 14 MS. O'BRIEN: 15 Q. So one of the things I understand is when you 16 get the -- when the TSB releases their report, 17 their report is really about one event? 18 MS. TURNER: 19 A. That's right. 20 MS. O'BRIEN: 21 Q. But yet I understand that the historical 22 information that they have seized is much 23 broader than one event, they just box up 24 everything and take it. 25 MS. TURNER:</p>

Page 41

1 A. Pack it up, yes.
 2 MS. O'BRIEN:
 3 Q. And then they decide what they need and what's
 4 relevant to their investigation of that
 5 particular incident. So one imagines that
 6 there is a huge amount of documentation that
 7 the TSB now has, you do not have access to,
 8 but yet will not figure in in any way to the
 9 TSBs ultimate report. So I'm wondering is in
 10 your --
 11 MS. TURNER:
 12 A. So how do we access that?
 13 MS. O'BRIEN:
 14 Q. As part of your procedure that you are going
 15 to get that other information, look at it,
 16 analyze it and see if there's anything of
 17 interest or importance there?
 18 MS. TURNER:
 19 A. Yes, sure. Could I ask a question in terms of
 20 the box of data that's been boxed up, and I'm
 21 familiar with the process of how that happens
 22 after an accident, what type of documentation
 23 are we talking about? Are we talking about
 24 internal company documentation?
 25 MS. O'BRIEN:

Page 42

1 Q. I don't know, because we don't have it, but I
 2 understand that it's everything related to
 3 that operator, everything that they have
 4 related to those particular helicopters. They
 5 just -- they go in, they box it, they leave.
 6 MS. TURNER:
 7 A. So in terms of -- and why I was asking that
 8 question about what type of documentation, is
 9 if that's internal company documentation, at
 10 some stage it will be returned, and so, I
 11 guess, when we look at the TSB's outcomes or
 12 investigation report, and then go back to the
 13 primary sources of -- say, there's 100
 14 documents that were impounded or collected and
 15 boxed up, and, say, maybe they only used 30 of
 16 those and there's another 70 documents; well,
 17 if we've got a list of those documents, then
 18 we can go back and look at whether or not
 19 we've already picked those up in literature
 20 reviews or the internal dialogue with the
 21 companies, and, I guess, this whole point is
 22 exactly why the level of interaction is really
 23 important in the industry risk profile
 24 because, I guess, you're moving down the path
 25 and if you don't have the right information,

Page 43

1 how could it be an accurate risk profile.
 2 MS. O'BRIEN:
 3 Q. Uh-hm.
 4 MS. TURNER:
 5 A. Is that your concern?
 6 MS. O'BRIEN:
 7 Q. That's my concern, yes.
 8 MS. TURNER:
 9 A. And so that's really where we have to have the
 10 exchange with the stakeholder groups and
 11 everybody in that and to really source that.
 12 Now one of the other aspects is the reason why
 13 we use 12 or more risk identification methods,
 14 and I used the example of interviews,
 15 yesterday I said we may interview 50 people,
 16 but that's just one risk identification
 17 technique. So it's actually quite
 18 comprehensive just in one of those methods.
 19 One of the reasons why we use 12 different
 20 techniques is because what you do is when you
 21 get the information, you start to layer it,
 22 and you stack -- what I call stack and rack.
 23 You basically stack it all up and then you're
 24 pulling out issues that are either worthy of
 25 note and are so significant that they'll stand

Page 44

1 on their own two feet, or the other type of
 2 issue will be those things that are
 3 repetitive, and we talked yesterday about the
 4 elephants and mosquitoes, but may not
 5 necessarily be high profile or really high
 6 risk. So that process of layering actually
 7 does give a level of integrity, and I can't
 8 guarantee that things won't be -- not missed,
 9 that's the wrong word, but if there's data
 10 input sources that are sole data input
 11 sources, and that's the only spot we can find
 12 that information, then as I said, we really
 13 would want to and would need to go back and
 14 find that source. If for some reason we can't
 15 access it, and it's just out of bounds, we'll
 16 note that as a limitation in IRP, and the
 17 impact of that limitation.
 18 MS. O'BRIEN:
 19 Q. Have you ever done an IRP before where there
 20 is concurrently an event investigation, an
 21 accident investigation, going on at the same
 22 time like we have here with the TSB?
 23 MS. TURNER:
 24 A. Yes. The most recent one is the helicopter
 25 medical industry in the United States. Now

Page 45	Page 47
<p>1 there was actually two layers of investigation 2 going on. One was a public inquiry similar to 3 this on the whole industry, and second to that 4 was about three or four fatal accident 5 investigation inquiry where the investigation 6 process had not been complete. So that same 7 issue about impounding documentation and that 8 information, et cetera, was there. So in a 9 couple of those examples, those reports were 10 released before the IRP, and in others it was 11 after the IRP.</p> <p>12 MS. O'BRIEN: 13 Q. Okay, and then -- so I just want to have some, 14 I suppose, assurance that --</p> <p>15 MS. TURNER: 16 A. Yes, good use of assurance.</p> <p>17 MS. O'BRIEN: 18 Q. That the documents that are eventually 19 released from the TSB --</p> <p>20 MS. TURNER: 21 A. Yes.</p> <p>22 MS. O'BRIEN: 23 Q. Someone from this Inquiry, or you, as the 24 expert, or someone is going to be having a 25 look at those.</p>	<p>1 MS. TURNER: 2 A. Uh-hm.</p> <p>3 MS. O'BRIEN: 4 Q. And Mr. Commissioner just said that any 5 information that he gets from experts or 6 anyone else, he will be sharing with everyone.</p> <p>7 MS. TURNER: 8 A. Yes.</p> <p>9 MS. O'BRIEN: 10 Q. So I'm interested, in your interviewing 11 process, in your -- you know, in this data 12 collection phase or that risk identification 13 piece, do you share the results of your 14 interviews with one particular group with 15 other interested parties? Is that information 16 all shared?</p> <p>17 MS. TURNER: 18 A. It is shared. There's a lot of information. 19 So there's no restrictions on some of that. 20 There is a process, though, of the 21 identification because, obviously, in order 22 for people to feel comfortable that they can 23 put their concerns out there, sometimes people 24 don't want that necessarily tagged with their 25 name, but in our interview process, clearly we</p>
<p style="text-align: right;">Page 46</p> <p>1 MS. TURNER: 2 A. Yes.</p> <p>3 MS. O'BRIEN: 4 Q. Not just at the TSB's ultimate report or 5 finding, but the other documentation to find 6 perhaps relevant, perhaps not, information 7 there.</p> <p>8 MS. TURNER: 9 A. Yes.</p> <p>10 MS. O'BRIEN: 11 Q. That might assist in the risk analysis.</p> <p>12 MS. TURNER: 13 A. Just on that point, I would concur with your 14 request for that assurance, and I'm fairly 15 confident that with the list of documentation 16 that would have been impounded that there 17 would be a list somewhere of those documents. 18 So maybe if we can work on sourcing that list, 19 I'd be very pleased to work through that and 20 the information that we don't have access to, 21 we'll endeavour to find that, as you say, and 22 include that in the process.</p> <p>23 MS. O'BRIEN: 24 Q. Okay. Now you talked a bit about how this is 25 really a collaborative effort --</p>	<p style="text-align: right;">Page 48</p> <p>1 understand where it's come from, so we do 2 actually compile results. So say, for 3 instance, if we were to interview 10 people or 4 50 people, we would actually type up those 5 notes in one big list and basically put it all 6 together. There's no reason why that raw 7 data, as I referred to it, can't be reviewed 8 by the interested parties, unless somebody 9 states that they don't want that released, but 10 I haven't necessarily found that to be the 11 case in our previous experience. People are 12 generally willing to share that. I will say 13 that sometimes people's concern is they don't 14 necessarily want their name to be tagged to 15 that, but you know, there's ways to ensure 16 that people's confidentiality is protected, 17 but the issues still get into the process.</p> <p>18 MS. O'BRIEN: 19 Q. Okay. Actually, I have a number of questions 20 to ask just on that piece. So for instance, 21 as you go in and you're going to be 22 interviewing Cougar, who's the air operator in 23 this case.</p> <p>24 MS. TURNER: 25 A. Yes.</p>

Page 49	Page 51
<p>1 MS. O'BRIEN:</p> <p>2 Q. Who would you interview at Cougar?</p> <p>3 MS. TURNER:</p> <p>4 A. Sure. In terms of just looking at it and</p> <p>5 talking about it now, I would probably start</p> <p>6 with senior management and talk with the CEO.</p> <p>7 I'd talk with the chief pilot, head of</p> <p>8 engineering, director of operations, and then</p> <p>9 really work our way down through the</p> <p>10 organization and then take a cross section--</p> <p>11 yesterday on the Risk Maker, Risk Taker DVD,</p> <p>12 Kevin Knight, the chairman of the Standards</p> <p>13 Committee, the ISO Standards Committee, talked</p> <p>14 about getting this slice section of the</p> <p>15 organization. So it might be that we have</p> <p>16 discussions with the crew on duty on the day</p> <p>17 or if the organization wants, there's no</p> <p>18 restrictions on everyone having input, if</p> <p>19 they'd like to go to that level of depth. And</p> <p>20 so from a professional risk compilation</p> <p>21 perspective, we actually do have a certain</p> <p>22 comfort level in terms of how deep you need to</p> <p>23 go within the organizations, and then it</p> <p>24 really comes down to if we feel that we need</p> <p>25 to speak with 15 people, but the organization</p>	<p>1 information that is released through</p> <p>2 airworthiness directives or safety alerts, et</p> <p>3 cetera. So that information can actually be</p> <p>4 fairly much openly sourced.</p> <p>5 MS. O'BRIEN:</p> <p>6 Q. Okay. So going back to who you'd be</p> <p>7 interviewing, say, at Cougar. Yesterday Mr.</p> <p>8 Roil picked a bunch of--picked a number of</p> <p>9 individuals, and he asked about, you know,</p> <p>10 what role did they play in the safety process.</p> <p>11 MS. TURNER:</p> <p>12 A. Yes.</p> <p>13 MS. O'BRIEN:</p> <p>14 Q. And one of them, of course, was a pilot, and</p> <p>15 you talked there about the pilot's role in</p> <p>16 terms of airmanship and reacting and whatnot.</p> <p>17 MS. TURNER:</p> <p>18 A. Yes.</p> <p>19 MS. O'BRIEN:</p> <p>20 Q. Very much at the operational level. I don't</p> <p>21 know if you explicitly said it, but I think</p> <p>22 we'd all be aware that another role that a</p> <p>23 pilot plays is in terms of reporting,</p> <p>24 monitoring accidents, incidents, near misses,</p> <p>25 and whatnot.</p>
<p>1 would like us to speak with 50, then there's</p> <p>2 no restrictions there as well.</p> <p>3 MS. O'BRIEN:</p> <p>4 Q. Okay, and likewise, would you be interviewing</p> <p>5 people from Sikorsky?</p> <p>6 MS. TURNER:</p> <p>7 A. Sikorsky is definitely a stakeholder that's</p> <p>8 been identified on our list. I would</p> <p>9 endeavour to speak with people at Sikorsky. I</p> <p>10 know there's some, I guess, interesting</p> <p>11 boundaries in terms of the airworthiness of</p> <p>12 the jurisdictions of the TSB and Sikorsky,</p> <p>13 whether they would be open to that. I'm</p> <p>14 actually quite familiar and comfortable with</p> <p>15 the head of safety at Sikorsky. He was</p> <p>16 involved in the IHST. He's involved in</p> <p>17 various panels. So there are opportunities to</p> <p>18 talk with the manufacturing community on that,</p> <p>19 and I guess we just need to ensure that the</p> <p>20 Terms of Reference are--we work within the</p> <p>21 Terms of Reference and respect that there.</p> <p>22 Now in terms of Sikorsky, with all</p> <p>23 manufacturers, whether it's Bell Helicopters,</p> <p>24 MD, Augusta Westland, Sikorsky, because their</p> <p>25 fleets are actually global, there is a lot of</p>	<p>1 MS. TURNER:</p> <p>2 A. Yes.</p> <p>3 MS. O'BRIEN:</p> <p>4 Q. That's a very, very important role that flight</p> <p>5 crew play in safety management, and of course,</p> <p>6 there is somewhat of a conflict there for</p> <p>7 people who are employed in the industry and</p> <p>8 are--you know, part of their safety piece is</p> <p>9 self-reporting their own mistakes, perhaps</p> <p>10 their own deficiencies. So there's one</p> <p>11 concern there that the people whose livelihood</p> <p>12 depends on this job are, of course, going to</p> <p>13 be reluctant to report on their own -</p> <p>14 MS. TURNER:</p> <p>15 A. Shortcomings, possibly.</p> <p>16 MS. O'BRIEN:</p> <p>17 Q. - "look, I made a mistake today" or whatever,</p> <p>18 and so, you know, they're concerned about</p> <p>19 their job security in that way that they're</p> <p>20 not seen as incompetent or whatever.</p> <p>21 MS. TURNER:</p> <p>22 A. Yes.</p> <p>23 MS. O'BRIEN:</p> <p>24 Q. Plus there's the other piece that even when</p> <p>25 the incident that may be reported on is not</p>

Page 53

1 something that could be laid at their feet,
 2 you talk about, you know, this just culture,
 3 this--you know, a corporate culture that
 4 encourages people to come forward and complain
 5 and that employees who do complain or, at the
 6 extreme level, whistle blow, are not
 7 ultimately face either some sort of overt or,
 8 in most cases, far less overt consequences in
 9 terms of how they go up the rank or what
 10 shifts they get offered and those kind of
 11 things. So I have concern there, how you
 12 handle that is one of the things you're going
 13 to be doing, I would assume, is interviewing
 14 flight crew and whatnot at Cougar, and I'm in
 15 particular interested in that piece because
 16 that's the--that's who I'm here representing
 17 is the family of deceased flight crew.
 18 MS. TURNER:
 19 A. Yes.
 20 MS. O'BRIEN:
 21 Q. I think the same thing could apply to other
 22 employees who Mr. Earle represents and whatnot
 23 who'd be in the exact same position. So what-
 24 --you know, what kind of procedures, what do
 25 you have in place to ensure that you are

Page 54

1 getting the information that you need and
 2 people are free to talk?
 3 MS. TURNER:
 4 A. Yeah, sure. I talked before about in the
 5 interview process, it really needs to be an
 6 open dialogue. In order for people to open
 7 up, they need to feel that there's a level of
 8 trust and that the information that they're
 9 going to share is actually, number one, going
 10 to be listened to and number two, be protected
 11 in some fashion. I talked before and used the
 12 word about de-identifying information and
 13 there's actually a set school of process as to
 14 how that's done in the aviation community to
 15 remove that information. Now it's actually
 16 quite difficult in a small organization where
 17 everybody knows each other and everyone knows
 18 who is flying on that day.
 19 MS. O'BRIEN:
 20 Q. I would say impossible.
 21 MS. TURNER:
 22 A. You de-identify and take off the pilot's name
 23 and the aircraft number, but because people
 24 know that it was on the, you know, 10th of
 25 December, people can work out who was on

Page 55

1 shift.
 2 MS. O'BRIEN:
 3 Q. Sure.
 4 MS. TURNER:
 5 A. And so they are some of the global challenges
 6 in aviation safety culture and reporting. Now
 7 in terms of how we would get to that
 8 information, there's a couple of different
 9 areas where we'll be looking. Firstly is does
 10 the organization have an incident reporting
 11 system, and you've mentioned that yes, that is
 12 the case. One of the components of a safety
 13 management system is having an open reporting
 14 system that any employee can kind of put
 15 information in. The other avenue is also
 16 having what they refer to as a confidential
 17 reporting system, which basically is the same
 18 form that you would fill in to put in your
 19 concerns, but where that information goes,
 20 it's actually routed through a different
 21 structure so that it doesn't necessarily go
 22 through the chain of command, up through your
 23 supervisor, to the chief pilot, to the
 24 director, you know, to the CEO, et cetera. So
 25 the aim of confidential reporting is if a

Page 56

1 pilot or a crew member or an employee has that
 2 fear that they'll be penalized in some way,
 3 shape or form by putting up their hand or
 4 disclosing this information, that confidential
 5 reporting system is designed to either go
 6 outside the organization and it's like a
 7 whistle blower's structure, but for aviation
 8 incident reports, and then be informed at the
 9 highest level, at the CEO's level, that a
 10 confidential report has been submitted, it's
 11 of this nature and the investigative process
 12 takes place there.
 13 So one of the things that we'll be
 14 looking at is does that process exist? If
 15 that process does exist, by accessing the
 16 information in that system, we could examine
 17 the effectiveness of that process and then
 18 couple that with speaking with the staff and
 19 crew and pilots, I would hope that we'd be
 20 able to have that dialogue and it would be
 21 trusted entity to be able to take that
 22 information forward, and so really is dealing
 23 with the sensitivities of human trust, of
 24 action.

Page 57

1 Even if it's not confidential and a pilot
 2 puts in an incident report, if management
 3 doesn't act on that concern or there's no
 4 visibility of that follow through, then it
 5 actually takes away people's confidence in
 6 even putting in the next incident report,
 7 because they'll say "well, last time nothing
 8 happened, so why should I go to the extent and
 9 put this in next time, if nothing's going to
 10 happen" and it goes into a grey sponge.

11 MS. O'BRIEN:
 12 Q. Right.

13 MS. TURNER:
 14 A. So there's some of the things that would be--
 15 we'd be looking at.

16 MS. O'BRIEN:
 17 Q. The other concern that I have in terms of how
 18 you're going to be getting the valuable
 19 information in this particular case is, of
 20 course, there is litigation underlying -

21 MS. TURNER:
 22 A. Yes.

23 MS. O'BRIEN:
 24 Q. - this entire procedure. You know, this did
 25 come out of an accident where, you know,

Page 58

1 people were killed and everybody in this room
 2 well knows that nothing stills a tongue faster
 3 than pending litigation. People are just--
 4 corporations, everyone is reluctant to talk.
 5 Their lawyers are telling them don't talk.

6 MS. TURNER:
 7 A. Don't say anything.

8 MS. O'BRIEN:
 9 Q. Don't say anything, because you know, there's
 10 possibility that we're going to be in the
 11 Courts on this, and so I have a bit of a
 12 concern how this Inquiry is going to be
 13 satisfied that it is--that people are talking
 14 freely, that the information can be shared
 15 among the stakeholders when you have this
 16 elephant in the room.

17 MS. TURNER:
 18 A. And we've actually had internal discussions
 19 here at the Inquiry about this very issue,
 20 about how do you create that trusted
 21 environment where the information put forward
 22 can be used for one purpose without
 23 necessarily being used in that litigation.
 24 Now I'm--I don't have a legal background. I'm
 25 not a qualified lawyer or attorney, and so one

Page 59

1 of the things that we will need to look at is
 2 the protection of that information, of how
 3 that--whether there's any jurisdiction or
 4 protection within the aviation acts and
 5 regulations for disclosure of private
 6 information. This has been a huge debate in
 7 the aviation industry globally around
 8 protection of disclosure.

9 Now we talked about just culture and you
 10 just referenced that before. One of the goals
 11 of the just culture, and it's not just a
 12 concept, there's actually a decision flow
 13 algorithm that sits behind it that is used in
 14 the investigation process about whether or not
 15 you attribute blame or whether or not it's a
 16 legitimate error or systemic failure where it
 17 leads to other either consoling a staff
 18 member, coaching, training, et cetera, or
 19 whether or not it is actually a breach and it
 20 was--you know, the issue was, I guess,
 21 somebody was negligent in fulfilling their
 22 roles and responsibility and so this is a very
 23 delicate area in aviation because clearly we
 24 want and need the information to be disclosed
 25 for self-improvement and to ensure that

Page 60

1 everything can be done to prevent these
 2 accidents from happening again. But then
 3 you've got this, as you say, like this
 4 overcast shadow of, you know, in the
 5 background, this reality of litigation and how
 6 that might influence people's behaviours to,
 7 as you say, you know, really not say anything,
 8 so to speak.

9 So we'll need to have some further
 10 dialogue around that and really possibly get
 11 back to the--well, all of the stakeholders say
 12 that there's a level of confidence as to how
 13 we navigate collectively through that to
 14 really achieve the outcome without necessarily
 15 inducing any unintended consequences from a
 16 litigation perspective.

17 MS. O'BRIEN:
 18 Q. I should be clear that certainly the goal of
 19 litigation is--it's when a judge sits and
 20 decides on a case, that judge is looking to
 21 find facts. The judge is looking for the
 22 truth.

23 MS. TURNER:
 24 A. Yes.

25 MS. O'BRIEN:

Page 61

1 Q. And that's why we have very liberal discovery
 2 procedures -
 3 MS. TURNER:
 4 A. Yes.
 5 MS. O'BRIEN:
 6 Q. - in this jurisdiction, so that information
 7 comes out and is shared. So my concern is not
 8 that people be allowed to keep their
 9 information confidential or secret. I would
 10 encourage information coming out and being
 11 shared, but I understand that the--realize the
 12 practicality is that people are reluctant to
 13 talk.
 14 COMMISSIONER:
 15 Q. Perhaps I should say to you, Ms. O'Brien,
 16 we're in the very first stage, which is the
 17 identification of issues. You are going a bit
 18 beyond that stage, as if the issues have
 19 already been identified. Now I, as
 20 Commissioner, am very conscious of the
 21 limitations in the Terms of Reference,
 22 especially the limitations vis-a-vis not
 23 finding criminal or civil liability, and in
 24 consultation with counsel, I will be very
 25 careful about releasing information or doing

Page 62

1 anything that might impact on any civil case.
 2 MS. O'BRIEN:
 3 Q. And to be clear, I appreciate what you're
 4 saying, but at this stage that's not really--
 5 my concern is not the results here. My
 6 concern is that how that affects your
 7 information gathering procedures at this
 8 stage.
 9 COMMISSIONER:
 10 Q. It may affect it, but it won't nullify it, at
 11 least that's our hope. But of course, we, as
 12 a Commission, and as a Commissioner, I have no
 13 control over what degree of trust, as it were,
 14 individuals may have in the Commission, but I
 15 would say this, I mentioned earlier this
 16 morning that I'm getting letters and telephone
 17 calls from people, both members of the public
 18 and those who work offshore. I will sift out
 19 the issues, as it were, very soon, probably
 20 within the next couple of weeks. I will be
 21 speaking to this group about issues or
 22 concerns that have been raised, but I
 23 certainly had no intention of divulging the
 24 names of the people who raised this, unless
 25 they ask me to, and nobody has asked me to in

Page 63

1 any of the letters as yet. Some of the
 2 letters don't even have a name attached, just
 3 a postmark. So I'm very conscious of that and
 4 that's something that I would not--my
 5 inclination and instinct would not be to
 6 reveal anyone's name, but the issue that was
 7 raised.
 8 MS. O'BRIEN:
 9 Q. Sure.
 10 COMMISSIONER:
 11 Q. I don't know if that's any help to you.
 12 MS. O'BRIEN:
 13 Q. It is. I mean, certainly I understand that
 14 piece, but say if someone provided this
 15 Commission information and they're providing
 16 it to the Commission but they want the
 17 information itself to be kept confidential.
 18 So I'm not talking about names or identifying
 19 information, but they want the actual
 20 information itself to be confidential. So for
 21 example, a company says you can speak to our
 22 employees and whatever, but we don't want what
 23 you learn to be shared, other than however it
 24 ultimately works its way into a result that
 25 you--the process. Would that be acceptable

Page 64

1 for this Commission?
 2 COMMISSIONER:
 3 Q. That's something that I would have to decide
 4 after taking advice, but we're not at that
 5 stage yet.
 6 MS. O'BRIEN:
 7 Q. Okay, and that's something I just at this--
 8 having listened to Ms. Turner, it's something
 9 that occurred to me.
 10 MS. TURNER:
 11 A. Absolutely.
 12 MS. O'BRIEN:
 13 Q. You know, as you're going through the process
 14 that it certainly raised questions in my mind
 15 how it was going to be handled and -
 16 COMMISSIONER:
 17 Q. Yes, and I'm glad you flagged it this morning.
 18 MS. TURNER:
 19 A. It's important.
 20 COMMISSIONER:
 21 Q. We've talked about it internally, but I'm glad
 22 you flagged it and now everybody is aware of
 23 the issue and that's good.
 24 MS. O'BRIEN:
 25 Q. Okay, and those are all my questions, so thank

Page 65

1 you very much.

2 MS. TURNER:

3 A. Thank you.

4 COMMISSIONER:

5 Q. Thank you. Now we turn to the other--I

6 referred to you, I believe, Mr. Barnes, as Mr.

7 Brown yesterday, didn't I? Sorry about that.

8 I have it right now. Ms. Brown is sitting

9 behind you, okay. I think Ms. Brown, I missed

10 you yesterday in asking if you had any

11 questions. You were there, Mr. Pritchard

12 wasn't here for the Government of Newfoundland

13 and Labrador. Are there any questions?

14 MR. PRITCHARD:

15 Q. No questions on behalf of the Province.

16 COMMISSIONER:

17 Q. Okay, thank you. Now who is remaining? I

18 guess Inquiry counsel to wrap up any

19 questioning.

20 MS. KIMBERLY TURNER, RE-EXAMINATION BY JOHN ROIL, Q.C.

21 ROIL, Q.C.:

22 Q. Yes, thank you, Commissioner. I guess, Ms.

23 Turner, I'm trying to share some of the

24 anxiety, I guess -

25 MS. TURNER:

Page 66

1 A. Yes.

2 ROIL, Q.C.:

3 Q. - that Ms. O'Brien had about examples and

4 trying to bring this down to a level that the

5 people that are watching out there, and many

6 of them would be the travellers, trying to

7 find examples of concrete things that you

8 could find in an IRP and I understand your

9 reluctance to sort of speculate in a world

10 where sometimes speculation becomes broadcast.

11 I don't mean that in the media sense, but

12 becomes--the rumour becomes reality. But we

13 do have--I have the document, the industry

14 risk profile that you did on the Helicopter

15 Emergency Medical Services. I don't know if

16 you have a copy there. It's not before us.

17 MS. TURNER:

18 A. Well, that's what I was looking for before,

19 and I've left it in the other office.

20 ROIL, Q.C.:

21 Q. Okay. Well, I can give you mine if you need

22 it.

23 COMMISSIONER:

24 Q. If you want, I can provide one for the

25 witness.

Page 67

1 MS. TURNER:

2 A. Thank you.

3 ROIL, Q.C.:

4 Q. Perhaps using that as an example where it has

5 already been--the work has been done, can you

6 just share with us a couple of the risks that

7 were identified, how they were sort of ranked

8 in terms of being serious, and then what the

9 risk treatment strategies that were suggested,

10 and I'll let you choose wherever they are, but

11 perhaps some that are concrete that have teeth

12 in them that might go beyond sort of culture

13 and other issues, because I know some of them

14 are broad and some of them are more focused.

15 MS. TURNER:

16 A. Sure.

17 ROIL, Q.C.:

18 Q. I'm looking at page 56, at the top of page 56.

19 It's about training and whatnot in that case.

20 I don't know if that's one you can -

21 MS. TURNER:

22 A. Actually, that's probably a good one. I'll

23 use, if I may, Mr. Roil, two different

24 examples. I'll first go to page 56, which is

25 one of the risk areas in the HEMS, or the

Page 68

1 Helicopter Emergency Medical Services, area.

2 Now the risk stated in this industry risk

3 profile is a risk that the current training

4 regime for a high percentage of the HEMS

5 industry does not employ the use of simulators

6 or advanced training methods broadly used in

7 other parts of the aviation industry,

8 predominantly due to cost.

9 ROIL, Q.C.:

10 Q. Right, so that was the risk?

11 MS. TURNER:

12 A. That's the risk.

13 ROIL, Q.C.:

14 Q. Okay, and how was that ranked in terms of its

15 likelihood and the consequence and whatnot?

16 MS. TURNER:

17 A. It's consequence was considered major, which

18 was the second notch down in the matrix that

19 we saw yesterday, and the likelihood was

20 likely, which was actually again at the third

21 aspect. So if I was to--just to put this in

22 perspective. Okay, so just looking at this

23 matrix, being major--sorry, second from the

24 bottom, and likely, it would fall in this area

25 here. So it would be one of these dots.

Page 69	Page 71
<p>1 ROIL, Q.C.:</p> <p>2 Q. I think actually one below there, major and</p> <p>3 likely -</p> <p>4 MS. TURNER:</p> <p>5 A. Sorry, there we go.</p> <p>6 ROIL, Q.C.:</p> <p>7 Q. One of those three little -</p> <p>8 MS. TURNER:</p> <p>9 A. That's right.</p> <p>10 ROIL, Q.C.:</p> <p>11 Q. - little pills, I called them.</p> <p>12 MS. TURNER:</p> <p>13 A. That's right, the pills. Now in terms of the</p> <p>14 treatment strategies, the first one was to</p> <p>15 develop a national training strategy for the</p> <p>16 HEMS industry. This training strategy would</p> <p>17 cover the full spectrum of training needs</p> <p>18 analysis. Now one of the aspects in this</p> <p>19 industry is to do scenario based training. So</p> <p>20 a training needs analysis would actually give</p> <p>21 you defined information about which scenarios</p> <p>22 would be needed and what associated skill</p> <p>23 sets, because clearly flying to a motor</p> <p>24 vehicle accident site at night in poor weather</p> <p>25 is very different to transporting a neonatal</p>	<p>1 MS. TURNER:</p> <p>2 A. That's right, that's right.</p> <p>3 ROIL, Q.C.:</p> <p>4 Q. - when you use the word "operators", there</p> <p>5 were many, okay.</p> <p>6 MS. TURNER:</p> <p>7 A. The next one here is to establish a helicopter</p> <p>8 safety education consortium to provide the</p> <p>9 full spectrum of accredited safety training.</p> <p>10 Now within the aviation industry, there are</p> <p>11 only a limited number of simulator providers</p> <p>12 and so the aim of that consortium is actually</p> <p>13 to provide access to the right training</p> <p>14 courses.</p> <p>15 The next one, cooperation among operators</p> <p>16 in the use of simulators for new aircraft.</p> <p>17 Because this risk was predominantly restricted</p> <p>18 due to cost, clearly purchasing a simulator is</p> <p>19 extremely expensive and in terms of different</p> <p>20 companies buying the same aircraft type, for</p> <p>21 example, the Bell 429 or the Augusta Westland</p> <p>22 139, the people that are purchasing those may</p> <p>23 actually be competitors, yet may fund, in a</p> <p>24 collective way, the investment into getting a</p> <p>25 simulator that is specific for their type. So</p>
<p>Page 70</p> <p>1 patient from hospital A to hospital B. So</p> <p>2 those two different scenarios would need to be</p> <p>3 considered from the competencies needed in</p> <p>4 that training environment.</p> <p>5 The second is that the FAA and operators,</p> <p>6 being those the air operators, to convene a</p> <p>7 review to establish minimize scenarios,</p> <p>8 scenario based simulated training</p> <p>9 requirements. So based on that training needs</p> <p>10 analysis, to have that interaction between the</p> <p>11 aviation operators and the regulator to have</p> <p>12 some form of dialogue.</p> <p>13 ROIL, Q.C.:</p> <p>14 Q. Okay, and just so that we're clear, there was</p> <p>15 not just one company being examined in the</p> <p>16 Helicopter Emergency Medical Services. There</p> <p>17 were a large number, were there?</p> <p>18 MS. TURNER:</p> <p>19 A. That's correct. At the time of this risk</p> <p>20 profile, there was 74 air operating</p> <p>21 certificate holders, so 74 different aviation</p> <p>22 companies.</p> <p>23 ROIL, Q.C.:</p> <p>24 Q. Yeah, so factually, it's very different from</p> <p>25 ours, but -</p>	<p>Page 72</p> <p>1 you need to understand with some of these</p> <p>2 aircraft, there is no simulator with exactly</p> <p>3 the same model. So the pilots might go to</p> <p>4 simulator training, but be actually practising</p> <p>5 on a different aircraft type. The last -</p> <p>6 ROIL, Q.C.:</p> <p>7 Q. Okay, so just--sorry, finish up, please.</p> <p>8 MS. TURNER:</p> <p>9 A. The last one was to identify resource and</p> <p>10 expertise in respect of simulator working</p> <p>11 groups at either the national or international</p> <p>12 levels to gain that expertise. Now the</p> <p>13 simulator working groups and the Royal</p> <p>14 Aeronautical Society is listed there and they</p> <p>15 have inroads into the airline community that</p> <p>16 have actually achieved this, whereas this</p> <p>17 component of the helicopter industry has not</p> <p>18 to date. So to actually share that</p> <p>19 experience.</p> <p>20 ROIL, Q.C.:</p> <p>21 Q. Okay. So if I can take the risk management</p> <p>22 lingo out of what I just heard from you.</p> <p>23 MS. TURNER:</p> <p>24 A. Yes.</p> <p>25 ROIL, Q.C.:</p>

Page 73

1 Q. The risk was or the problem was that the crews
 2 were not prepared for unusual and difficult
 3 and challenging situations. They didn't have
 4 simulator training in that case. The
 5 companies were competing with one another and
 6 perhaps were small and couldn't all own their
 7 own simulator, so the solution was to find a
 8 method whereby simulator use could be shared
 9 amongst competing companies?
 10 MS. TURNER:
 11 A. That's correct.
 12 ROIL, Q.C.:
 13 Q. Okay. So I think that perhaps would not be at
 14 all relevant in our fact situation.
 15 MS. TURNER:
 16 A. That's right.
 17 ROIL, Q.C.:
 18 Q. But I think people will perhaps understand how
 19 the risk profile looks at a problem, looks at
 20 the challenges in that problem and tries to
 21 find a solution.
 22 MS. TURNER:
 23 A. That's good. Mr. Roil, if I may, you've
 24 touched on the issue and the solution, or the
 25 risk and the treatment strategy. Now in the

Page 74

1 dialogue that we just had with Ms. O'Brien and
 2 also some of the other questions that we've
 3 had, really looking at the relationship with
 4 the operational event. If we look down the
 5 column on this page 56, there is a column that
 6 sits next to the risk which actually has the
 7 impact on the HEMS industry, and so these are
 8 all those consequences or potential
 9 consequences that could occur if this risk is
 10 not resolved.
 11 ROIL, Q.C.:
 12 Q. Yes.
 13 MS. TURNER:
 14 A. And that's actually a very, very important
 15 list and there's 11 different impacts, most of
 16 those negative, that if this risk is not
 17 addressed, these things could transpire, could
 18 or may.
 19 ROIL, Q.C.:
 20 Q. Yes.
 21 MS. TURNER:
 22 A. And there's various things here in terms of an
 23 impact may be that the crews are unprepared
 24 for emergency situations such as an engine
 25 failure, as you can't practice that in real

Page 75

1 time. That crews aren't prepared for unusual
 2 or rare situations, so those scenarios that we
 3 talked about. The crew cohesion may not be as
 4 strong--sorry, the crew cohesion not as strong
 5 and structured as it could be. The decision
 6 making and risk management could be less
 7 structured. Now how these things have been
 8 derived are basically through the information
 9 that's been collected, where comments were
 10 made by the pilot group and the pilot
 11 association and pilot surveys, et cetera, that
 12 they didn't feel prepared for this because you
 13 can't practice, and so you can see that that
 14 column of how it works, that's actually at an
 15 operational or organizational level, what
 16 would normally be on the list of risk, but in
 17 an industry risk profile, we look at that
 18 layer behind it and we compile into a more
 19 strategic level industry issue that can be
 20 monitored and addressed.
 21 ROIL, Q.C.:
 22 Q. Yeah, so the ultimate premise, I take it, is
 23 that an incident doesn't often happen because
 24 of one failure. Usually there are a series of
 25 events. That's the swiss cheese theory?

Page 76

1 MS. TURNER:
 2 A. That's right.
 3 ROIL, Q.C.:
 4 Q. Because something bad happens, you can't
 5 always just blame it on one thing. You often
 6 find there are other reasons behind that.
 7 MS. TURNER:
 8 A. Multiple, that's correct.
 9 ROIL, Q.C.:
 10 Q. This document, I think you said, has been
 11 released publicly. I don't know if it's
 12 available free of charge. I understand that
 13 we might be able to make this available to the
 14 parties in the room, if we can't offer it to
 15 the public generally. There is a mechanism
 16 whereby, I gather -
 17 MS. TURNER:
 18 A. There is, and I will confirm that this
 19 document is available to download free of
 20 charge off the Flight Safety Foundation
 21 website.
 22 ROIL, Q.C.:
 23 Q. Okay. So if you go to the Flight Safety
 24 Foundation website, which is?
 25 MS. TURNER:

1 A. Which is www.flightsafety.org and if you do a
 2 search on their website for HEMS IRP, it will
 3 come up and you can download that document.
 4 ROIL, Q.C.:
 5 Q. Good. Thank you very much. That's all the
 6 questions that I have. The Commissioner may
 7 have some, obviously.
 8 MS. KIMBERLY TURNER, EXAMINATION BY COMMISSIONER WELLS
 9 COMMISSIONER:
 10 Q. Thank you, Mr. Roil. Yes, Ms. Turner, I have
 11 one question really. I'll preface it perhaps
 12 with a remark or two. I remember in the '70s
 13 acting as counsel on a public commission on
 14 safety that involved certain accidents and
 15 fatalities in the province. The words "risk
 16 management" and "risk assessment" were never
 17 spoken in that process. So risk management
 18 and risk assessment, as I understand it, are
 19 fairly new, and what I'd like to ask you, and
 20 without divulging any information belonging to
 21 your clients, but in your experience, if an
 22 organization has adopted the sort of things
 23 that you're proposing, how has it worked?
 24 What has happened?
 25 MS. TURNER:

1 around the world and it really is becoming
 2 part of the fabric of decision making and
 3 assurance.
 4 In terms of how this has worked, and I'll
 5 talk about both industry level risk profiles,
 6 because that's the context of our
 7 discussions, but you can apply this risk
 8 process within a company at the business level
 9 or you can apply this process at an
 10 operational level and in this scenario, the
 11 actual operational task of flying to a rig
 12 with a helicopter.
 13 So in terms of how it has worked, I think
 14 the beauty of the risk management process is
 15 having a documented process that gives you a
 16 road map of the jobs that need to be
 17 undertaken in order to formally reduce risk.
 18 So that in a collective setting, you can
 19 actually check off that the jobs have been
 20 done and rather than just having an intuitive
 21 confidence that everything's okay, you've
 22 actually got facts and figures in front of you
 23 that those risk treatment strategies are
 24 underway or in progress.
 25 So a couple of examples at the flying

1 A. Sure. Now that's a very correct observation
 2 in terms of risk management is a fairly new
 3 field, and I'd just draw some parallels that
 4 the formalization of risk management, it's
 5 been around for, say since the mid '90s in its
 6 formal sense, in the business discipline, but
 7 in some of the specialty industry areas, like
 8 the nuclear industry and science and mining,
 9 et cetera, very much safety risk has been more
 10 formalized dating back a little bit further,
 11 but I draw the parallel that the emergence of
 12 the risk management discipline is a little bit
 13 like where project management was at 20 years
 14 ago. People clearly managed projects, yet
 15 maybe you couldn't go and buy the project
 16 management book of knowledge with the ten step
 17 or the methodology or you couldn't buy a
 18 software program or get an accreditation or a
 19 post-graduate degree in the science of project
 20 management.
 21 Risk management is very similar to that,
 22 and it's probably ten years behind project
 23 management, but rapidly becoming part of
 24 business, the community, accountability, all
 25 the way through to operational practice all

1 level. There's one of our clients in the
 2 United States actually undertakes search and
 3 rescue task profiles. Now that would only be
 4 about five percent of the type of flying that
 5 they do. So it's not that regular, and it's
 6 really interesting that they're a fairly small
 7 organization with two aircraft and about maybe
 8 ten pilots, and it's actually very interesting
 9 that when you sit down with the pilots and
 10 actually say "well, how do you undertake this
 11 type of task?" they all actually did it a
 12 slightly different way. Now there was no
 13 right or wrong, but over the years, different
 14 people have built that experience. So at an
 15 operational level, through applying the risk
 16 management process, we were able to gain input
 17 from the whole pilot group, actually map how
 18 do you do it and how do you do it, and then
 19 compare it and say, oh, they're about 20
 20 percent. Well, how do we want to do it as an
 21 organization, and then there was an alignment
 22 of the task sequence, in terms of the order
 23 that they would fly that task. Even little
 24 things like the criteria to cancel a search.
 25 It was very much an individual criteria of

Page 81

1 when the pilot wasn't--basically felt that
 2 they were at their limit or that the search
 3 wasn't actually going to be successful. So
 4 the organization was able to get some
 5 definition around that process and get
 6 consistency in a pilot group, which really
 7 didn't have that much non-alignment. It was
 8 more just tidying up to get consistency, and
 9 then from their safety management system
 10 perspective, now when they actually go out and
 11 undertake the search and rescue tasks, they
 12 refer to that operational risk profile before
 13 they accept the task, during their flight
 14 briefing process, just to make sure that, you
 15 know, everything's in line.

16 Now it doesn't restrict them from doing
 17 things outside the boundaries, but what it
 18 does do is it gives them a nice definition
 19 that if today's task falls outside that
 20 mission profile or that task profile, that
 21 then triggers them to spend a little bit more
 22 time to do additional quick risk assessment.
 23 That information is then captured in the
 24 flight debriefing process when they come back
 25 and they've got time, because clearly a search

Page 82

1 and rescue task, often there's time
 2 constraints right upfront. Then in that
 3 debriefing process, they have a cycle where
 4 that on a monthly basis, the quality group or
 5 the safety committee actually reviews the
 6 number of variation reports that they get and
 7 they will actually update or at least have the
 8 dialogue of whether they want to change and
 9 shift where the corporate boundaries are for
 10 that type of flying.

11 So the question is well what value does
 12 that add? A couple of things. Firstly,
 13 there's a high level of assurance around
 14 consistency that the task is being done in the
 15 same way or at least with consistent
 16 practices. The second output is that that
 17 organization now has a formal documented
 18 process to capture the variations and so
 19 rather than just over the years the task,
 20 search and rescue tasking started like this
 21 and then in five years time it actually--the
 22 boundaries have skewed and it's like this.
 23 That actually now they can capture that. The
 24 third output is they have a process for then
 25 asking the so-what question, about so what

Page 83

1 does that shift mean? Do we need to change
 2 our procedures? Do we need to change our
 3 training regime? So this starts now getting
 4 into organizational decisions about pilot
 5 training, about, you know, crew selection,
 6 about the aircraft type and the aircraft
 7 suitability, equipment. So you can see that
 8 an operational level issue, if it's done in
 9 the right way, and the crews, on a monthly
 10 basis, sit down and say "so what? So what do
 11 we need to change?" Well, let's not change
 12 anything at this stage, but let's just
 13 continue to monitor the shift in the profile.

14 Now if over a one or a two-year period,
 15 and maybe 30 different tasks, search and
 16 rescue tasks or 50 different tasks that come
 17 in, there's this big shift, that would then
 18 give justification to then spend some resource
 19 or change and re-divert resource to then shift
 20 the pilot training regime.

21 So you can see how this logical flow of a
 22 very simple activity that took them maybe
 23 three hours to develop, the largest thing is
 24 actually getting people to use those processes
 25 when they're not used to it. So there needs

Page 84

1 to be some level of implementation activity
 2 that goes with that, but you can see then that
 3 the safety management system is actually real
 4 and alive and is used and has benefit to the
 5 pilots, but also to the organization. So
 6 there's one good example of how that has
 7 helped.

8 Have they actually reduced accident and
 9 incidents? Well, they haven't had the level
 10 of serious events that they had. They had two
 11 tail rotor strikes with trees prior to that
 12 and when they did their internal
 13 investigation, they found that that was
 14 because they were working outside the expected
 15 norm of that task profile and they were
 16 shifting without necessarily having that shift
 17 in the training and the procedures that needs
 18 to go with that to give you the defences.
 19 Will it give you an absolute certainty that
 20 they won't have an incident? No, it won't,
 21 but certainly it does go a long way to
 22 providing a high level of confidence and
 23 assurance that the processes are in place and
 24 are sound. So there's an example from an
 25 operational perspective.

Page 85

1 When we're talking about industry risk
 2 profiling, it's the same job, but a much
 3 broader application. So rather than trying to
 4 just change the practices or monitor the
 5 practices of ten air crew, it might be looking
 6 at a whole industry. Now in this case, this
 7 industry sector that we're looking at is quite
 8 contained. It is quite small. You're
 9 fortunate that at this stage you have one
 10 aviation provider. So the boundaries are
 11 actually quite tight. In the helicopter
 12 medical industry, when you're talking 74
 13 different companies, all with different
 14 business models spread right across the
 15 country, clearly the level of effort that's
 16 required to bring about that implementation is
 17 much more comprehensive and a much more
 18 challenging task and will need a lot of
 19 support and rigor, both the stick and the
 20 carrot, to actually help that take place.
 21 Now one practical example of an industry
 22 risk profile that we conducted for the
 23 parachute industry, I mentioned that one
 24 yesterday. Within the context of the
 25 parachute industry that was assessed and a

Page 86

1 industry risk profile was done, it actually
 2 comes under a private classification. So the
 3 operators that fly the planes don't have a
 4 requirement to have an operating certificate
 5 like the airlines. So it's a private aircraft
 6 for private usage. So it comes under a
 7 different regulatory regime. Now because of
 8 all of that and the context of the industry is
 9 you're jumping out of the aircraft, you're not
 10 necessarily travelling in it, so a lot of the-
 11 -when you look at the fleet profile, and that
 12 is something that actually was undertaken as
 13 part of that industry risk profile, we looked
 14 at all the different aircraft types. We
 15 looked at their age. We looked at their
 16 configuration. We looked at the aircraft
 17 management systems that goes around the
 18 airworthiness in that case, and one of the
 19 concerns was because a lot of modifications
 20 are made and doors are taken off so
 21 parachuters can jump out the side or the back
 22 or, you know, all of these various things, the
 23 management of old aircraft that it really
 24 wasn't on the horizon to replace them with
 25 brand new shiny aircraft because of the type

Page 87

1 of job that they do. One of the risk
 2 treatment strategies was for the industry,
 3 sponsored by the industry association, to
 4 develop an aircraft hazard management package
 5 that could assist the organizations in
 6 identifying the hazards of their older
 7 aircraft and then, at an industry level,
 8 monitor that to see whether or not other
 9 activities could be undertaken to educate or
 10 to bring to the attention of the regulator or
 11 to get some type of intervention.
 12 So there's a real practical example at an
 13 industry level. As I mentioned, it's the same
 14 process but when it's a lot broader and when
 15 there's more players involved or there's more
 16 operators, it becomes a more complex issue to
 17 implement, which is why, at an industry risk
 18 profiling level, you generally have the
 19 involvement or the sponsorship of these IRPs
 20 by a regulator, because they actually do have
 21 oversight, control and influence of the
 22 industry group itself.
 23 COMMISSIONER:
 24 Q. Okay, thank you. Anything arising, ladies and
 25 gentlemen? Okay then, now I think, Ms. Fagan,

Page 88

1 you have something to say unrelated to this
 2 matter.
 3 MS. FAGAN:
 4 Q. Thank you, Commissioner. This will be the end
 5 of the evidence for today and the next hearing
 6 day is Thursday, and as you are aware,
 7 Thursday the witness that's scheduled is
 8 Robert Decker and Robert Decker is the lone
 9 survivor of the March 12th crash, and he's
 10 going to appear at the Inquiry to describe his
 11 experience.
 12 Now I'd just this group to be aware, and
 13 the viewers to be aware, that there's a
 14 tremendous interest in the information that
 15 Mr. Decker is going to provide the Inquiry and
 16 a large number of the family members of the
 17 passengers and crew of the Flight 491 have
 18 expressed an interest in attending on November
 19 5th and I understand many of the families are
 20 travelling, some a considerable distance, in
 21 order to be here in person and attend in this
 22 room, and as we've all discussed and some of
 23 the viewers at home may not be aware that, you
 24 know, the room has a limited capacity and
 25 there are fire regulations that only allow us

1 to go so far, and it is the will of the
 2 Commissioner and the Inquiry and as well the
 3 parties that priority be given to these family
 4 members, and many of the parties have
 5 indicated that they will allocate some of
 6 their spaces that are normally assigned for
 7 the parties for the family members. In light
 8 of this and in light of the size of the room,
 9 unfortunately there is not going to be any
 10 space for the general public and I just would
 11 like the general public to know that because
 12 of the size of the room and because of the
 13 desire to give priority to the families, the
 14 room will not be able to accommodate the
 15 general public.

16 Now this information is going to be
 17 webcast and is going to be broadcast on
 18 Rogers. So we're encouraging the people who
 19 would like to view this information to the
 20 first priority should be to view it through
 21 their televisions. The second source would be
 22 the webcast and through their computers.
 23 However, sometimes these computer systems,
 24 although we've been told they're reliable,
 25 sometimes if there's an excessive amount of

1 CERTIFICATE
 2 We, the undersigned, do hereby certify that
 3 the foregoing is a true and correct transcript of a
 4 hearing heard on the 3rd day of November, 2009 at
 5 Tara Place, 31 Peet Street, Suite 213, St. John's
 6 Newfoundland and Labrador and was transcribed by us
 7 to the best of our ability by means of a sound
 8 apparatus.
 9 Dated at St. John's, NL this
 10 3rd day of November, 2009
 11 Cindy Sooley
 12 Discoveries Unlimited Inc.
 13 Judy Moss
 14 Discoveries Unlimited Inc.

1 traffic on the internet lines, you can, you
 2 know, experience a problem. We're doing our
 3 best. Our web provider has said that it
 4 should be able to accommodate all the traffic.
 5 However, we'd encourage those to look at their
 6 TVs as their first source.

7 So this group, the parties, have assigned
 8 an allocated some of their seating and there
 9 will be assigned seating. So the parties will
 10 receive a number and an assigned seat and the
 11 first priority will be to the families, and I
 12 should get the seat numbers out to everybody
 13 probably some time tomorrow. I hope that is
 14 clear. Thank you.

15 COMMISSIONER:
 16 Q. Okay then, thank you. All right then, we'll
 17 adjourn until Thursday morning at 9:30. Thank
 18 you.
 19 ADJOURNED TO NOVEMBER 5, 2009 AT 9:30 A.M.

-?-	able [9] 3:1 37:5 56:20 56:21 76:13 80:16 81:4 89:14 90:4	agree [2] 8:12 35:2	appropriately [1] 16:8	baggage [1] 5:1
'70s [1] 77:12	abnormal [1] 2:17	agreed [1] 26:6	area [4] 16:13 59:23 68:1 68:24	ball [1] 10:23
'90s [1] 78:5	absolute [1] 84:19	ahead [2] 4:23 35:23	areas [13] 1:14 2:5,25 15:22 17:18 21:19 28:16 29:9 33:24 34:4 55:9 67:25 78:7	Barnes [1] 65:6
---	Absolutely [1] 64:11	aim [2] 55:25 71:12	arising [1] 87:24	barriers [2] 14:15 15:6
-when [1] 86:11	accept [1] 81:13	air [8] 2:3 3:16 6:15 39:9 48:22 70:6,20 85:5	aspect [2] 32:17 68:21	base [2] 7:21 16:24
-you [1] 53:24	acceptable [1] 63:25	aircraft [35] 1:22 2:4,10 2:14 3:12 4:1,3,19 13:1 14:14,20 20:24,25 21:10 22:8 37:15,21,22 39:11 54:23 71:16,20 72:2,5 80:7 83:6,6 86:5,9,14,16 86:23,25 87:4,7	aspects [5] 18:6,7 37:20 43:12 69:18	based [3] 69:19 70:8,9
-1-	access [11] 5:7 36:22 37:4 37:5 39:12,19 41:7,12 44:15 46:20 71:13	airline [1] 72:15	assessed [2] 28:17 85:25	basis [4] 26:17 39:7 82:4 83:10
10 [1] 48:3	accessing [1] 56:15	airliner [2] 6:11,23	assessment [4] 3:6 77:16 77:18 81:22	basket [1] 11:16
100 [1] 42:13	accident [9] 13:16,17 39:5 41:22 44:21 45:4 57:25 69:24 84:8	airlines [1] 86:5	assigned [4] 89:6 90:7,9 90:10	beat [1] 5:21
10th [1] 54:24	accidents [4] 37:18 51:24 60:2 77:14	airmanship [1] 51:16	assist [3] 9:20 46:11 87:5	beauty [1] 79:14
11 [1] 74:15	accommodate [2] 89:14 90:4	airworthiness [3] 50:11 51:2 86:18	associated [1] 69:22	becomes [5] 24:19 66:10 66:12,12 87:16
12 [4] 27:15 28:5 43:13 43:19	accountability [2] 26:10 78:24	aisle [1] 4:20	association [2] 75:11 87:3	becoming [2] 78:23 79:1
12th [1] 88:9	accreditation [1] 78:18	alerts [1] 51:2	assume [2] 25:1 53:13	behalf [1] 65:15
139 [1] 71:22	accredited [1] 71:9	algorithm [1] 59:13	assumption [1] 15:23	behaviours [1] 60:6
15 [1] 49:25	accurate [1] 43:1	alignment [1] 80:21	assurance [6] 45:14,16 46:14 79:3 82:13 84:23	behind [6] 31:9 59:13 65:9 75:18 76:6 78:22
-2-	achieve [1] 60:14	alive [1] 84:4	attached [1] 63:2	Bell [2] 50:23 71:21
20 [2] 78:13 80:19	achieved [1] 72:16	allocate [1] 89:5	attempts [1] 39:4	belonging [1] 77:20
2009 [4] 1:1 90:19 91:4 91:10	acknowledgement [1] 2:13	allocated [1] 90:8	attend [1] 88:21	below [1] 69:2
213 [1] 91:5	act [1] 57:3	allow [1] 88:25	attendant [2] 4:14 5:9	benchmark [1] 30:25
25 [2] 10:24 21:17	acting [1] 77:13	allowed [1] 61:8	attendants [1] 6:19	benefit [1] 84:4
26 [1] 10:21	action [1] 56:24	alluded [1] 33:4	attending [1] 88:18	bent [1] 19:7
-3-	activities [2] 25:22 87:9	alternate [1] 25:24	attention [1] 87:10	best [3] 2:8 90:3 91:7
3 [1] 1:1	activity [3] 34:5 83:22 84:1	always [2] 25:24 76:5	attorney [1] 58:25	better [3] 12:9 30:17 31:16
30 [2] 42:15 83:15	acts [1] 59:4	amazing [1] 38:10	attribute [1] 59:15	between [1] 70:10
31 [1] 91:5	actual [5] 2:1 14:18 37:1 63:19 79:11	among [2] 58:15 71:15	audience [1] 38:21	beyond [4] 5:15 40:7 61:18 67:12
3rd [2] 91:4,10	adaptation [2] 2:9 7:1	amongst [1] 73:9	Augusta [2] 50:24 71:21	big [4] 3:22 11:16 48:5 83:17
-4-	add [1] 82:12	amount [2] 41:6 89:25	Australia [4] 38:3,6,14 38:16	biggest [1] 22:12
429 [1] 71:21	added [1] 40:7	analysing [2] 35:12,16	available [6] 34:21 37:11 39:13 76:12,13,19	bit [13] 1:18 4:11 5:6 11:23 18:22 33:4 37:9 46:24 58:11 61:17 78:10 78:12 81:21
491 [1] 88:17	adding [1] 23:5	analysis [12] 19:11 25:12 30:17 31:5,12,20 33:19 33:23 46:11 69:18,20 70:10	avenue [1] 55:15	blame [3] 5:23 59:15 76:5
-5-	additional [2] 29:19 81:22	analyze [1] 41:16	aviation [25] 1:19,24 2:2 2:23 4:6 5:19 7:18 8:9 17:14 24:21 29:18,19 37:9 38:19 54:14 55:6 56:7 59:4,7,23 68:7 70:11,21 71:10 85:10	blow [1] 53:6
5 [1] 90:19	addressed [3] 39:2 74:17 75:20	answer [2] 37:7 39:17	aware [10] 7:21 35:6 38:20,21 51:22 64:22 88:6,12,13,23	blower's [1] 56:7
50 [4] 43:15 48:4 50:1 83:16	adequate [1] 23:7	answers [1] 36:24	awareness [3] 5:13 7:22 8:9	board [2] 7:3 15:2
56 [4] 67:18,18,24 74:5	adjourn [1] 90:17	anticipate [1] 15:16	away [3] 4:18 39:19 57:5	boarding [1] 14:13
5th [1] 88:19	ADJOURNED [1] 90:19	anxiety [1] 65:24	-B-	book [1] 78:16
-7-	adopted [2] 25:23 77:22	anyone's [1] 63:6	B [1] 70:1	bottom [1] 68:24
70 [1] 42:16	advanced [1] 68:6	Anyway [1] 9:4	background [2] 58:24 60:5	boundaries [6] 3:3 50:11 81:17 82:9,22 85:10
74 [3] 70:20,21 85:12	advances [1] 39:11	apologize [1] 33:20	backlog [1] 22:18	bounds [1] 44:15
747 [1] 3:18	advice [1] 64:4	apparatus [1] 91:8	backpack [2] 4:23,24	box [3] 40:23 41:20 42:5
-9-	Aeronautical [1] 72:14	appear [1] 88:10	backward [1] 7:17	boxed [2] 41:20 42:15
92A [1] 9:15	affect [1] 62:10	application [4] 2:20 5:11 7:7 85:3	backwards [1] 13:14	brand [1] 86:25
9:30 [2] 90:17,19	affects [1] 62:6	applied [1] 8:6	bad [2] 21:7 76:4	breach [3] 12:15 14:9 59:19
-A-	again [4] 18:10 29:21 60:2 68:20	apply [5] 1:20 14:5 53:21 79:7,9		break [2] 10:4 11:5
A.M [1] 90:19	against [1] 30:17	applying [3] 3:7 29:7 80:15		brief [1] 14:19
ability [1] 91:7	age [1] 86:15	appreciate [2] 19:15 62:3		briefing [1] 81:14
	agent [1] 9:16	approach [1] 21:13		bring [3] 66:4 85:16 87:10
	ago [3] 3:18 39:3 78:14	appropriate [1] 35:7		broad [2] 38:19 67:14
				broadcast [2] 66:10

89:17 broader [5] 33:6 37:9 40:23 85:3 87:14 broadly [1] 68:6 Brown [3] 65:7,8,9 built [1] 80:14 bullet [1] 27:14 bunch [1] 51:8 business [5] 17:24 78:6 78:24 79:8 85:14 buy [2] 78:15,17 buying [1] 71:20	chart [1] 38:14 check [1] 79:19 checked [1] 14:24 cheese [4] 14:7 17:20 24:16 75:25 chief [2] 49:7 55:23 choose [1] 67:10 Cindy [1] 91:11 civil [2] 61:23 62:1 clarify [2] 1:10 2:5 clarifying [1] 6:4 classification [2] 6:8 86:2 clear [4] 60:18 62:3 70:14 90:14 clearly [7] 47:25 59:23 69:23 71:18 78:14 81:25 85:15 clients [2] 77:21 80:1 clues [1] 15:19 coaching [1] 59:18 cohesion [2] 75:3,4 collaborative [1] 46:25 collect [1] 33:11 collected [2] 42:14 75:9 Collecting [1] 35:16 collection [1] 47:12 collective [3] 31:25 71:24 79:18 collectively [2] 26:5 60:13 column [3] 74:5,5 75:14 comfort [1] 49:22 comfortable [4] 5:25 21:6 47:22 50:14 coming [5] 14:14 17:20 25:2 28:25 61:10 command [1] 55:22 commanders [1] 12:16 comment [1] 27:4 comments [3] 6:4 26:12 75:9 commercial [2] 6:11,23 commercially [1] 3:15 commission [7] 9:20 62:12,14 63:15,16 64:1 77:13 Commissioner [34] 1:2 1:8,13 6:9 7:11 8:11,18 9:2,20,23 25:1 26:21 27:2,7 47:4 61:14,20 62:9,12 63:10 64:2,16 64:20 65:4,16,22 66:23 77:6,8,9 87:23 88:4 89:2 90:15 committee [3] 49:13,13 82:5 communicate [1] 35:3 community [4] 50:18 54:14 72:15 78:24 companies [6] 42:21 70:22 71:20 73:5,9 85:13 company [7] 17:14 19:4	41:24 42:9 63:21 70:15 79:8 comparative [1] 30:16 compare [1] 80:19 compartment [1] 5:1 compartmentalize [1] 11:7 competencies [1] 70:3 competing [2] 73:5,9 competitors [1] 71:23 compilation [1] 49:20 compile [2] 48:2 75:18 compiling [1] 39:5 complain [2] 53:4,5 complete [2] 37:12 45:6 complex [1] 87:16 compliance [2] 16:24 33:25 component [1] 72:17 components [2] 18:4 55:12 comprehensive [2] 43:18 85:17 computer [1] 89:23 computers [1] 89:22 concept [4] 5:9 8:5 22:2 59:12 concepts [4] 3:7 7:1,5 14:5 concern [13] 39:18,18 43:5,7 48:13 52:11 53:11 57:3,17 58:12 61:7 62:5 62:6 concerned [1] 52:18 concerns [4] 47:23 55:19 62:22 86:19 concrete [3] 20:1 66:7 67:11 concur [1] 46:13 concurrently [1] 44:20 conditions [1] 3:4 conducted [1] 85:22 conducting [1] 28:9 confidence [4] 57:5 60:12 79:21 84:22 confident [1] 46:15 confidential [8] 55:16 55:25 56:4,10 57:1 61:9 63:17,20 confidentiality [1] 48:16 configuration [1] 86:16 confirm [1] 76:18 conflict [1] 52:6 connect [1] 16:8 conscious [2] 61:20 63:3 consequence [4] 13:2 13:15 68:15,17 consequences [4] 53:8 60:15 74:8,9 considerable [2] 6:17 88:20	consideration [1] 26:14 considered [3] 2:21 68:17 70:3 considers [1] 36:21 consistency [3] 81:6,8 82:14 consistent [1] 82:15 consoling [1] 59:17 consortium [2] 71:8,12 constraints [1] 82:2 consultant [1] 26:24 consultation [1] 61:24 contained [1] 85:8 contemplated [1] 4:9 context [8] 1:20 7:2 18:24 22:24 34:4 79:6 85:24 86:8 continually [1] 32:5 continue [1] 83:13 control [3] 36:15 62:13 87:21 convene [1] 70:6 conversation [1] 8:20 conviction [1] 4:12 cooperation [1] 71:15 copy [1] 66:16 corporate [2] 53:3 82:9 corporations [1] 58:4 correct [12] 6:25 10:2,12 26:12,20 27:19 40:3 70:19 73:11 76:8 78:1 91:3 cost [2] 68:8 71:18 Cougar [6] 18:25 20:11 48:22 49:2 51:7 53:14 counsel [5] 9:16 34:20 61:24 65:18 77:13 counting [1] 15:1 countries [1] 38:11 country [2] 39:7 85:15 couple [11] 1:10 14:4 15:3 39:3 45:9 55:8 56:18 62:20 67:6 79:25 82:12 course [7] 20:8 30:8 51:14 52:5,12 57:20 62:11 courses [1] 71:14 Courts [1] 58:11 cover [1] 69:17 crash [5] 9:15 12:17 13:1 13:6 88:9 crashes [2] 12:11,14 create [2] 5:24 58:20 crew [21] 1:16,23,25 2:1 2:6 4:1 5:10,12 6:7 17:24 49:16 52:5 53:14,17 56:1 56:19 75:3,4 83:5 85:5 88:17 crewman [1] 2:3 crews [4] 73:1 74:23 75:1 83:9 criminal [1] 61:23	criteria [3] 11:15 80:24 80:25 CRM [2] 2:9 6:4 cross [1] 49:10 cultural [1] 18:7 culture [10] 5:23,23,24 17:22 53:2,3 55:6 59:9 59:11 67:12 cure [1] 31:17 current [1] 68:3 cycle [1] 82:3
-C-			-D-	
calls [1] 62:17 Canada [1] 38:17 cancel [1] 80:24 capacity [1] 88:24 captain [1] 4:19 capture [2] 82:18,23 captured [1] 81:23 careful [1] 61:25 carrot [1] 85:20 case [14] 5:4 23:21 29:11 36:8 48:11,23 55:12 57:19 60:20 62:1 67:19 73:4 85:6 86:18 cases [2] 2:2 53:8 categories [1] 34:2 category [2] 18:13,20 causal [3] 31:5,12,19 causes [1] 31:14 caveat [1] 24:8 CEO [2] 49:6 55:24 CEO's [1] 56:9 certain [3] 12:1 49:21 77:14 certainly [12] 3:15 4:2,5 7:16 8:12 33:14 34:17 60:18 62:23 63:13 64:14 84:21 certainty [2] 21:25 84:19 certificate [3] 70:21 86:4 91:1 certify [1] 91:2 cetera [8] 7:5 39:10 45:8 51:3 55:24 59:18 75:11 78:9 chain [1] 55:22 chairman [2] 39:2 49:12 challenge [1] 22:13 challenges [2] 55:5 73:20 challenging [2] 73:3 85:18 chance [2] 14:23 22:1 change [14] 6:7 21:18,20 21:23 28:13,17,24 82:8 83:1,2,11,11,19 85:4 changes [1] 17:1 charge [2] 76:12,20			data [27] 17:8 18:12 25:12 31:13,19,20,21,24 32:2 35:16,17 36:14,22 36:22 37:8,10 38:2 39:5 39:12,20 40:7,9 41:20 44:9,10 47:11 48:7 date [3] 19:17 20:18 72:18 Dated [1] 91:9 dating [1] 78:10 de-identify [1] 54:22 de-identifying [1] 54:12 dealing [1] 56:22 debate [1] 59:6 debriefing [2] 81:24 82:3 deceased [3] 9:14,17 53:17 December [1] 54:25 decide [2] 41:3 64:3 decides [1] 60:20 decision [3] 59:12 75:5 79:2 decisions [2] 16:12 83:4 Decker [3] 88:8,8,15 deemed [2] 5:12 6:7 deep [1] 49:22 defences [1] 84:18 defenses [1] 14:15 deficiencies [1] 52:10 defined [3] 1:23 15:5 69:21 defining [1] 34:18 definitely [1] 50:7 definition [3] 1:22 81:5 81:18 degree [2] 62:13 78:19 delay [2] 22:16,20 delicate [1] 59:23 depth [2] 31:8 49:19 derived [1] 75:8 describe [1] 88:10 descriptive [1] 1:24 design [1] 7:7 designed [1] 56:5 desire [1] 89:13 destabilize [1] 21:24 detail [1] 30:4	

<p>determines [1] 11:10 develop [3] 69:15 83:23 87:4 developed [3] 7:6 24:24 26:9 dialogue [11] 16:4 23:10 33:11 34:19 42:20 54:6 56:20 60:10 70:12 74:1 82:8 different [26] 13:18 19:5 19:6,7 32:19 33:17 37:19 43:19 55:8,20 67:23 69:25 70:2,21,24 71:19 72:5 74:15 80:12,13 83:15,16 85:13,13 86:7 86:14 difficult [2] 54:16 73:2 dimension [1] 33:22 dimensional [1] 33:19 dimensions [1] 34:2 directives [1] 51:2 director [2] 49:8 55:24 discipline [3] 1:19 78:6 78:12 disclosed [1] 59:24 disclosing [1] 56:4 disclosure [2] 59:5,8 Discoveries [2] 91:12 91:14 discovery [1] 61:1 discussed [2] 1:14 88:22 discussions [3] 49:16 58:18 79:7 disruption [1] 22:4 distance [1] 88:20 ditches [1] 12:11 dive [1] 22:22 divulging [2] 62:23 77:20 document [6] 10:7 24:10 66:13 76:10,19 77:3 documentation [12] 32:1,16,17,20 41:6,22 41:24 42:8,9 45:7 46:5 46:15 documented [2] 79:15 82:17 documents [6] 24:4 42:14,16,17 45:18 46:17 doesn't [13] 3:24 4:17 5:17 11:5 25:10,10,17 25:18,20 55:21 57:3 75:23 81:16 done [12] 10:16 27:8 30:23,24 44:19 54:14 60:1 67:5 79:20 82:14 83:8 86:1 doors [1] 86:20 dots [1] 68:25 down [20] 2:22 4:13,14 4:20 5:1,22 7:20 10:5 11:18 20:6 22:23 26:1 42:24 49:9,24 66:4 68:18 74:4 80:9 83:10 download [2] 76:19 77:3</p>	<p>drafting [1] 26:6 draw [4] 11:15 22:15 78:3,11 drip [2] 3:21,23 dripping [2] 4:16 5:2 due [2] 68:8 71:18 during [1] 81:13 duty [1] 49:16 DVD [1] 49:11</p> <hr/> <p style="text-align: center;">-E-</p> <hr/> <p>Earle [1] 53:22 easiest [1] 29:4 easy [1] 24:9 educate [1] 87:9 education [1] 71:8 effective [1] 16:19 effectively [2] 15:24 36:20 effectiveness [1] 56:17 effort [2] 46:25 85:15 eight [1] 34:10 either [5] 43:24 53:7 56:5 59:17 72:11 elephant [1] 58:16 elephants [1] 44:4 elsewhere [1] 40:11 emergence [1] 78:11 emergency [4] 66:15 68:1 70:16 74:24 employ [1] 68:5 employed [1] 52:7 employee [2] 55:14 56:1 employees [3] 53:5,22 63:22 employment [2] 22:15 23:8 empower [1] 3:8 empowered [1] 6:1 encourage [2] 61:10 90:5 encourages [1] 53:4 encouraging [1] 89:18 end [2] 14:3 88:4 endeavour [2] 46:21 50:9 engage [1] 33:5 engine [1] 74:24 engineering [1] 49:8 ensure [4] 48:15 50:19 53:25 59:25 ensuring [1] 14:17 entire [1] 57:24 entitled [1] 27:13 entity [1] 56:21 environment [8] 3:12 5:19,25 7:5 13:9 17:1 58:21 70:4 environmental [7] 28:9 28:12,15,20,22 29:7 33:24</p>	<p>equipment [2] 7:4 83:7 equivalent [1] 37:13 error [1] 59:16 especially [1] 61:22 establish [2] 70:7 71:7 et [8] 7:5 39:10 45:8 51:2 55:24 59:18 75:11 78:9 etc [1] 14:19 event [6] 13:15 15:11 40:17,23 44:20 74:4 events [4] 31:21 32:2 75:25 84:10 eventually [1] 45:18 everybody [7] 26:24 27:9 43:11 54:17 58:1 64:22 90:12 everything's [2] 79:21 81:15 evidence [1] 88:5 exact [1] 53:23 exactly [5] 2:19 11:9 12:9 42:22 72:2 EXAMINATION [2] 9:7 77:8 examine [4] 16:3 17:15 34:3 56:16 examined [1] 70:15 examining [2] 4:21 15:22 example [25] 3:13 12:10 14:1 16:12 17:9 18:19 18:23 20:13,21,25 22:7 22:24,25 23:3,3,24 31:8 43:14 63:21 67:4 71:21 84:6,24 85:21 87:12 examples [11] 12:22 16:1 20:1,5 23:11 27:22 45:9 66:3,7 67:24 79:25 excessive [1] 89:25 exchange [1] 43:10 excuse [1] 4:15 exist [5] 15:8 18:25 32:24 56:14,15 expand [2] 20:22 21:17 expanding [1] 21:10 expected [3] 28:24 29:2 84:14 expecting [1] 29:3 expensive [1] 71:19 experience [6] 48:11 72:19 77:21 80:14 88:11 90:2 experienced [1] 3:14 expert [2] 9:19 45:24 expertise [2] 72:10,12 experts [1] 47:5 explained [1] 18:13 explicitly [1] 51:21 exploration [1] 29:3 explore [1] 6:2 exposure [2] 3:16 15:25 expressed [1] 88:18 extend [1] 11:18</p>	<p>extent [1] 57:8 extreme [2] 11:12 53:6 extremely [3] 19:17 20:2 71:19</p> <hr/> <p style="text-align: center;">-F-</p> <hr/> <p>FAA [1] 70:5 fabric [1] 79:2 face [1] 53:7 fact [1] 73:14 factor [3] 31:5,12,20 facts [2] 60:21 79:22 factually [1] 70:24 Fagan [3] 34:22 87:25 88:3 fail [1] 14:24 failed [1] 13:8 fails [1] 12:13 failure [3] 59:16 74:25 75:24 fairly [8] 1:23 14:16 33:1 46:14 51:4 77:19 78:2 80:6 fall [1] 68:24 falls [2] 18:12 81:19 familiar [5] 2:17,24 24:19 41:21 50:14 familiarity [2] 7:18 8:15 families [3] 88:19 89:13 90:11 family [6] 9:14,16 53:17 88:16 89:3,7 far [3] 11:11 53:8 89:1 fashion [1] 54:11 faster [1] 58:2 fatal [1] 45:4 fatalities [1] 77:15 fear [2] 5:20 56:2 feeling [2] 5:16,16 feet [2] 44:1 53:1 felt [1] 81:1 few [1] 6:3 field [2] 4:6 78:3 fifth [1] 13:23 figure [1] 41:8 figures [1] 79:22 fill [1] 55:18 financial [1] 34:1 finding [2] 46:5 61:23 findings [2] 25:11 26:14 finish [1] 72:7 fire [1] 88:25 firefighting [2] 8:8 39:9 first [7] 9:17 61:16 67:24 69:14 89:20 90:6,11 Firstly [2] 55:9 82:12 fit [3] 2:8 7:6 14:18 fits [1] 15:14 five [8] 4:19 20:25 29:8 32:8,10,12 80:4 82:21</p>	<p>flag [1] 7:8 flagged [3] 4:13 64:17 64:22 flavour [1] 19:6 fleet [5] 20:23 21:11 29:16 37:15 86:11 fleets [3] 39:6 40:10 50:25 flight [18] 3:17,19 4:14 5:8 6:18 9:17 12:16 14:11 16:3 23:24 52:4 53:14,17 76:20,23 81:13 81:24 88:17 flow [3] 3:22 59:12 83:21 flush [1] 33:13 fly [3] 7:15 80:23 86:3 flyer [1] 3:17 flying [8] 2:10 14:14 54:18 69:23 79:11,25 80:4 82:10 focus [1] 33:16 focused [1] 67:14 follow [1] 57:4 followed [2] 16:19,22 foregoing [1] 91:3 form [4] 26:17 55:18 56:3 70:12 formal [8] 2:4,11 4:2 21:2,12,14 78:6 82:17 formalization [1] 78:4 formalized [1] 78:10 formally [1] 79:17 fortunate [1] 85:9 forum [1] 39:3 forward [5] 7:17 35:22 53:4 56:22 58:21 found [3] 39:15 48:10 84:13 Foundation [3] 23:24 76:20,24 four [6] 20:24 32:7,10 34:17 38:22 45:4 fourth [1] 13:23 free [3] 54:2 76:12,19 freely [1] 58:14 frequent [1] 3:17 front [1] 79:22 fulfilling [1] 59:21 full [2] 69:17 71:9 fund [1] 71:23</p> <hr/> <p style="text-align: center;">-G-</p> <hr/> <p>gain [2] 72:12 80:16 gather [1] 76:16 gathering [1] 62:7 general [3] 89:10,11,15 generally [4] 21:6 48:12 76:15 87:18 generic [1] 19:3 gentlemen [2] 1:3 87:25 given [2] 25:3 89:3</p>
--	--	--	--	--

<p>giving [1] 24:25 glad [2] 64:17,21 global [4] 38:18,24 50:25 55:5 globally [1] 59:7 goal [3] 2:17 3:7 60:18 goals [1] 59:10 goes [5] 21:18 55:19 57:10 84:2 86:17 good [17] 1:3,13 7:22 9:1 9:9,11 16:6 22:25 30:17 34:19,20 45:16 64:23 67:22 73:23 77:5 84:6 governance [1] 24:6 Government [1] 65:12 great [1] 39:13 greater [1] 8:9 grey [1] 57:10 group [13] 8:24 27:3 33:6 33:16 47:14 62:21 75:10 80:17 81:6 82:4 87:22 88:12 90:7 groups [3] 43:10 72:11 72:13 guarantee [1] 44:8 guess [16] 5:2 21:22 22:4 31:15 33:1,9,12 42:11 42:21,24 50:10,19 59:20 65:18,22,24 gut [2] 5:16,16</p>	<p>44:5 68:4 82:13 84:22 higher [2] 7:18 11:4 highest [2] 10:20 56:9 historical [8] 31:21 32:2 35:17 36:14,21 37:8 39:19 40:21 holders [1] 70:21 home [1] 88:23 hope [3] 56:19 62:11 90:13 horizon [1] 86:24 hospital [2] 70:1,1 hours [1] 83:23 HUET [1] 35:1 huge [2] 41:6 59:6 human [1] 56:23</p>	<p>increase [2] 22:8 29:16 indicated [1] 89:5 individual [2] 11:6 80:25 individuals [2] 51:9 62:14 inducing [1] 60:15 industries [1] 30:18 industry [68] 8:7,7,8 9:24 10:4,15 11:3,14 12:25 13:4,20 15:7,17 15:18 17:3 21:3 23:21 23:25 24:2,7,24 25:9 28:10,23 29:1 37:10,20 38:19,24 39:8,9,10 40:8 42:23 44:25 45:3 52:7 59:7 66:13 68:2,5,7 69:16,19 71:10 72:17 74:7 75:17,19 78:7,8 79:5 85:1,6,7,12,21,23 85:25 86:1,8,13 87:2,3,7 87:13,17,22 influence [2] 60:6 87:21 inform [2] 24:5 26:19 information [65] 1:18 5:7 7:21 12:24 13:12 15:14 16:10,11 18:24 19:16 24:10 26:13 31:24 31:25 32:3 33:12 37:4 37:17,24 38:8 40:22 41:15 42:25 43:21 44:12 45:8 46:6,20 47:5,15,18 51:1,3 54:1,8,12,15 55:8 55:15,19 56:4,16,22 57:19 58:14,21 59:2,6 59:24 61:6,9,10,25 62:7 63:15,17,19,20 69:21 75:8 77:20 81:23 88:14 89:16,19 informed [1] 56:8 initiate [1] 8:3 initiative [1] 38:25 input [5] 27:4 44:10,10 49:18 80:16 inquiry [15] 9:21 19:16 20:3 25:2 26:15 27:24 45:2,5,23 58:12,19 65:18 88:10,15 89:2 inquisition [1] 8:3 inroads [1] 72:15 instance [2] 48:3,20 instinct [1] 63:5 integrate [1] 16:8 integrity [1] 44:7 intent [2] 26:7,7 intention [1] 62:23 interaction [2] 42:22 70:10 interest [4] 7:24 41:17 88:14,18 interested [5] 23:23 47:10,15 48:8 53:15 interesting [5] 11:8 39:1 50:10 80:6,8 internal [5] 41:24 42:9 42:20 58:18 84:12</p>	<p>internally [1] 64:21 international [2] 38:23 72:11 internet [1] 90:1 interrupt [2] 16:15 26:22 interrupting [1] 7:9 interruption [1] 9:5 intervention [1] 87:11 interview [5] 43:15 47:25 48:3 49:2 54:5 interviewing [5] 47:10 48:22 50:4 51:7 53:13 interviews [3] 28:3 43:14 47:14 introducing [1] 21:10 introduction [1] 21:13 intuitive [1] 79:20 intuitively [1] 21:15 investigation [11] 36:9 37:11 41:4 42:12 44:20 44:21 45:1,5,5 59:14 84:13 investigative [1] 56:11 investment [1] 71:24 involved [9] 2:10 7:25 8:13 24:2,20 50:16,16 77:14 87:15 involvement [1] 87:19 IRP [10] 24:24 25:4 27:13 35:21 44:16,19 45:10,11 66:8 77:2 IRPs [2] 10:15 87:19 ISO [1] 49:13 isolation [1] 27:8 issue [12] 5:20 14:2 44:2 45:7 58:19 59:20 63:6 64:23 73:24 75:19 83:8 87:16 issues [15] 13:25 15:8 16:3,5 24:13 25:13 32:4 32:24 43:24 48:17 61:17 61:18 62:19,21 67:13 it'll [1] 11:8 items [1] 11:17 iteration [1] 40:5 itself [7] 17:15 34:5 35:2 37:1 63:17,20 87:22</p>	<p>jurisdictions [1] 50:12 justification [1] 83:18</p> <hr/> <p style="text-align: center;">-K-</p> <p>Kate [2] 9:7,13 keep [2] 30:13 61:8 kept [1] 63:17 Kevin [1] 49:12 killed [1] 58:1 KIMBERLEY [1] 9:7 KIMBERLY [2] 65:20 77:8 kind [8] 4:15 8:15 18:12 20:14 31:10 53:10,24 55:14 Knight [1] 49:12 knowledge [5] 2:22 3:25 7:20 8:4 78:16 knows [3] 54:17,17 58:2</p>
<p style="text-align: center;">-H-</p> <p>hand [1] 56:3 handle [1] 53:12 handled [1] 64:15 happening [1] 60:2 happy [1] 35:3 haul [1] 3:19 hazard [1] 87:4 hazards [6] 2:23 5:14 11:6 15:25 21:6 87:6 head [2] 49:7 50:15 hear [1] 15:3 heard [3] 8:20 72:22 91:4 hearing [2] 88:5 91:4 helicopter [20] 7:19 10:8 12:11,13,14 14:10 20:23 23:25 29:14 38:23,24 39:6 44:24 66:14 68:1 70:16 71:7 72:17 79:12 85:11 helicopters [5] 6:14 7:25 23:5 42:4 50:23 help [4] 15:24 24:5 63:11 85:20 helped [1] 84:7 helpful [1] 20:2 helps [1] 28:16 HEMS [5] 67:25 68:4 69:16 74:7 77:2 hereby [1] 91:2 high [12] 3:16 11:13,16 19:17 21:3 24:11,12 44:5</p>	<p style="text-align: center;">-I-</p> <p>ID [2] 32:15 33:3 idea [2] 12:9,18 identification [12] 2:16 27:15,22 28:8 30:15 31:4 33:18 43:13,16 47:12,21 61:17 identified [7] 10:21 18:19 23:3 25:4 50:8 61:19 67:7 identifies [1] 25:13 identify [4] 3:2 10:7,25 72:9 identifying [2] 63:18 87:6 IHST [2] 38:24 50:16 imagines [1] 41:5 impact [5] 22:6 44:17 62:1 74:7,23 impacts [1] 74:15 implement [1] 87:17 implementation [3] 26:10 84:1 85:16 implemented [2] 25:23 25:25 implied [1] 18:25 implying [1] 6:6 importance [1] 41:17 important [5] 19:7 42:23 52:4 64:19 74:14 impossible [1] 54:20 impounded [2] 42:14 46:16 impounding [1] 45:7 Inc [2] 91:12,14 incident [10] 14:11 39:5 41:5 52:25 55:10 56:8 57:2,6 75:23 84:20 incident/accident [1] 37:10 incidents [5] 32:2 37:18 38:3 51:24 84:9 inclination [1] 63:5 include [2] 25:3 46:22 incompetent [1] 52:20</p>	<p>increase [2] 22:8 29:16 indicated [1] 89:5 individual [2] 11:6 80:25 individuals [2] 51:9 62:14 inducing [1] 60:15 industries [1] 30:18 industry [68] 8:7,7,8 9:24 10:4,15 11:3,14 12:25 13:4,20 15:7,17 15:18 17:3 21:3 23:21 23:25 24:2,7,24 25:9 28:10,23 29:1 37:10,20 38:19,24 39:8,9,10 40:8 42:23 44:25 45:3 52:7 59:7 66:13 68:2,5,7 69:16,19 71:10 72:17 74:7 75:17,19 78:7,8 79:5 85:1,6,7,12,21,23 85:25 86:1,8,13 87:2,3,7 87:13,17,22 influence [2] 60:6 87:21 inform [2] 24:5 26:19 information [65] 1:18 5:7 7:21 12:24 13:12 15:14 16:10,11 18:24 19:16 24:10 26:13 31:24 31:25 32:3 33:12 37:4 37:17,24 38:8 40:22 41:15 42:25 43:21 44:12 45:8 46:6,20 47:5,15,18 51:1,3 54:1,8,12,15 55:8 55:15,19 56:4,16,22 57:19 58:14,21 59:2,6 59:24 61:6,9,10,25 62:7 63:15,17,19,20 69:21 75:8 77:20 81:23 88:14 89:16,19 informed [1] 56:8 initiate [1] 8:3 initiative [1] 38:25 input [5] 27:4 44:10,10 49:18 80:16 inquiry [15] 9:21 19:16 20:3 25:2 26:15 27:24 45:2,5,23 58:12,19 65:18 88:10,15 89:2 inquisition [1] 8:3 inroads [1] 72:15 instance [2] 48:3,20 instinct [1] 63:5 integrate [1] 16:8 integrity [1] 44:7 intent [2] 26:7,7 intention [1] 62:23 interaction [2] 42:22 70:10 interest [4] 7:24 41:17 88:14,18 interested [5] 23:23 47:10,15 48:8 53:15 interesting [5] 11:8 39:1 50:10 80:6,8 internal [5] 41:24 42:9 42:20 58:18 84:12</p>	<p>internally [1] 64:21 international [2] 38:23 72:11 internet [1] 90:1 interrupt [2] 16:15 26:22 interrupting [1] 7:9 interruption [1] 9:5 intervention [1] 87:11 interview [5] 43:15 47:25 48:3 49:2 54:5 interviewing [5] 47:10 48:22 50:4 51:7 53:13 interviews [3] 28:3 43:14 47:14 introducing [1] 21:10 introduction [1] 21:13 intuitive [1] 79:20 intuitively [1] 21:15 investigation [11] 36:9 37:11 41:4 42:12 44:20 44:21 45:1,5,5 59:14 84:13 investigative [1] 56:11 investment [1] 71:24 involved [9] 2:10 7:25 8:13 24:2,20 50:16,16 77:14 87:15 involvement [1] 87:19 IRP [10] 24:24 25:4 27:13 35:21 44:16,19 45:10,11 66:8 77:2 IRPs [2] 10:15 87:19 ISO [1] 49:13 isolation [1] 27:8 issue [12] 5:20 14:2 44:2 45:7 58:19 59:20 63:6 64:23 73:24 75:19 83:8 87:16 issues [15] 13:25 15:8 16:3,5 24:13 25:13 32:4 32:24 43:24 48:17 61:17 61:18 62:19,21 67:13 it'll [1] 11:8 items [1] 11:17 iteration [1] 40:5 itself [7] 17:15 34:5 35:2 37:1 63:17,20 87:22</p>	<p style="text-align: center;">-L-</p> <p>Labrador [3] 40:9 65:13 91:6 ladies [2] 1:3 87:24 laid [1] 53:1 land [1] 7:12 large [3] 33:8 70:17 88:16 largest [1] 83:23 last [5] 36:24 38:22 57:7 72:5,9 late [1] 1:15 lawyer [1] 58:25 lawyers [1] 58:5 layer [4] 13:21 17:21 43:21 75:18 layering [1] 44:6 layers [1] 45:1 lead [1] 13:8 leads [1] 59:17 learn [1] 63:23 learned [1] 37:24 learnt [1] 8:13 least [4] 20:19 62:11 82:7 82:15 leave [1] 42:5 left [1] 66:19 legal [1] 58:24 legitimate [2] 14:10 59:16 less [5] 10:24 18:5,7 53:8 75:6 lessons [1] 37:24 letters [5] 8:21,23 62:16 63:1,2 level [43] 7:18,22 8:9 11:5 13:23 14:12,22 15:8 18:2 19:4,18 21:3,4,19 24:11,13 42:22 44:7 49:19,22 51:20 53:6 54:7 56:9,9 60:12 66:4 75:15 75:19 79:5,8,10 80:1,15</p>

<p>82:13 83:8 84:1,9,22 85:15 87:7,13,18 levels [3] 17:16 18:2 72:12 liability [1] 61:23 liberal [1] 61:1 licensed [3] 2:1,3 5:12 lid [1] 4:24 light [3] 7:3 89:7,8 lighting [1] 3:21 likelihood [2] 68:15,19 likely [3] 68:20,24 69:3 likewise [1] 50:4 limit [1] 81:2 limitation [3] 11:2 44:16 44:17 limitations [2] 61:21,22 limited [2] 71:11 88:24 line [1] 81:15 lines [1] 90:1 lingo [1] 72:22 lining [1] 14:19 liquid [4] 3:22,22 4:16 4:16 list [13] 11:11,19,20 15:11 32:12 42:17 46:15,17,18 48:5 50:8 74:15 75:16 listed [1] 72:14 listened [2] 54:10 64:8 literature [3] 32:18,25 42:19 litigation [6] 57:20 58:3 58:23 60:5,16,19 livelihood [1] 52:11 located [1] 38:9 logical [1] 83:21 lone [1] 88:8 look [40] 4:15,17 5:3 11:12,13,16 14:7 15:17 17:21 19:2 21:11 22:23 23:23 24:12 26:9,10 28:10,22,23 30:23,24 32:23 33:2,13 35:17 36:2 39:4,25 40:7,9 41:15 42:11,18 45:25 52:17 59:1 74:4 75:17 86:11 90:5 looked [8] 14:21 15:20 17:18 32:5 86:13,15,15 86:16 looking [30] 4:21 7:1,2 10:22 12:18 13:12,14 14:13 17:3,19 20:4 22:10 35:22,23 38:2,7,18 39:7 49:4 55:9 56:14 57:15 60:20,21 66:18 67:18 68:22 74:3 85:5,7 looks [3] 29:8 73:19,19 loop [1] 40:5 lots [1] 19:18 love [1] 7:24 lower [1] 11:13</p>	<p style="text-align: center;">-M-</p> <p>machines [1] 14:18 major [3] 68:17,23 69:2 Maker [1] 49:11 manage [2] 15:25 22:11 managed [2] 21:15 78:14 management [43] 1:16 2:7,13 3:1 5:10,11 15:23 16:4,7,18 17:22 19:19 19:19 21:14 22:2 26:8 29:5 31:7 33:22 36:21 49:6 52:5 55:13 57:2 72:21 75:6 77:16,17 78:2 78:4,12,13,16,20,21,23 79:14 80:16 81:9 84:3 86:17,23 87:4 manages [1] 14:9 manufacturers [1] 50:23 manufacturing [1] 50:18 map [2] 79:16 80:17 March [1] 88:9 matrix [2] 68:18,23 matter [2] 27:4 88:2 may [33] 2:14 3:2 6:2 8:2 13:7 14:10 15:10,20,22 18:7 24:20,20 25:2 28:9 29:16,18 31:4 37:4,8 43:15 44:4 52:25 62:10 62:14 67:23 71:22,23 73:23 74:18,23 75:3 77:6 88:23 MD [1] 50:24 mean [10] 12:17 29:13 29:13,14,15,21 30:9 63:13 66:11 83:1 meaningful [1] 20:4 means [1] 91:7 mechanism [1] 76:15 media [1] 66:11 medical [7] 23:25 39:9 44:25 66:15 68:1 70:16 85:12 medium [1] 11:13 member [3] 4:1 56:1 59:18 members [5] 5:12 62:17 88:16 89:4,7 mentioned [6] 18:3 35:10 55:11 62:15 85:23 87:13 metal [1] 14:18 method [2] 33:3 73:8 methodology [2] 27:13 78:17 methods [5] 32:15 33:17 43:13,18 68:6 mid [1] 78:5 might [27] 2:7 5:5 6:10 14:3,11 16:5,16 24:12 26:22 29:15 30:16,23 32:1,1,3,24,25 37:19,22</p>	<p>46:11 49:15 60:6 62:1 67:12 72:3 76:13 85:5 miles [1] 3:16 mind [3] 6:13 34:16 64:14 minds [1] 26:23 mine [1] 66:21 minimize [1] 70:7 minimized [1] 25:5 mining [2] 8:7 78:8 minute [1] 1:17 minutes [1] 4:19 misinterpreted [1] 6:5 missed [3] 16:10 44:8 65:9 misses [1] 51:24 missing [1] 20:18 mission [1] 81:20 mistake [1] 52:17 mistakes [1] 52:9 mode [1] 31:10 model [5] 14:7 15:18 17:20 24:16 72:3 models [1] 85:14 modifications [1] 86:19 moment [1] 26:22 monitor [3] 83:13 85:4 87:8 monitored [1] 75:20 monitoring [1] 51:24 monthly [2] 82:4 83:9 months [1] 22:21 Montreal [1] 39:3 morning [8] 1:3,13 2:5 9:9,11 62:16 64:17 90:17 mosquitoes [1] 44:4 Moss [1] 91:13 most [4] 10:20 44:24 53:8 74:15 motor [1] 69:23 move [4] 11:17,19 20:24 38:22 moved [1] 16:11 moving [1] 42:24 Ms [228] 1:3,6,9,12 6:24 7:13 8:16,25 9:5,7,7,8,9 9:10,12 10:1,3,11,13,17 10:19 11:1,21 12:3,5,20 16:14,21 17:2,5,7,11 18:9,15,17,21 19:8,12 19:14,21,23 20:7,9,15 20:17,20 23:1,9,13,15 24:22 25:6,16,19 26:16 26:18,25 27:5,10,11,18 27:20,25 28:2,7,19,21 29:22,24 30:1,5,7,10,12 30:14,20,22 31:1,3,18 31:23 32:6,9,11,13 34:6 34:8,9,11,14,22 35:8,13 35:15,18,20,24 36:1,4,6 36:11,13,17,19,23 38:1 38:5 39:16,21,23 40:2,4 40:12,14,18,20,25 41:2 41:11,13,18,25 42:6 43:2</p>	<p>43:4,6,8 44:18,23 45:12 45:15,17,20,22 46:1,3,8 46:10,12,23 47:1,3,7,9 47:17 48:18,24 49:1,3 50:3,6 51:5,11,13,17,19 52:1,3,14,16,21,23 53:18 53:20 54:3,19,21 55:2,4 57:11,13,16,21,23 58:6 58:8,17 60:17,23,25 61:3 61:5,15 62:2 63:8,12 64:6,8,10,12,18,24 65:2 65:8,9,20,22,25 66:3,17 67:1,15,21 68:11,16 69:4 69:8,12 70:18 71:1,6 72:8,23 73:10,15,22 74:1 74:13,21 76:1,7,17,25 77:8,10,25 87:25 88:3 Multiple [1] 76:8 must [1] 24:8</p> <p style="text-align: center;">-N-</p> <p>name [5] 47:25 48:14 54:22 63:2,6 names [2] 62:24 63:18 national [2] 69:15 72:11 nature [2] 21:5 56:11 navigate [1] 60:13 near [1] 51:24 necessarily [21] 2:7,11 2:25 7:9 8:2 11:5 13:5 15:10 16:22 22:13 23:16 38:13 44:5 47:24 48:10 48:14 55:21 58:23 60:14 84:16 86:10 need [23] 29:16,17,19 30:3 33:13 41:3 44:13 49:22,24 50:19 54:1,7 59:1,24 60:9 66:21 70:2 72:1 79:16 83:1,2,11 85:18 needed [3] 4:12 69:22 70:3 needs [7] 40:6 54:5 69:17 69:20 70:9 83:25 84:17 negative [1] 74:16 negligent [1] 59:21 neonatal [1] 69:25 network [1] 39:14 never [1] 77:16 new [9] 21:10 23:5 29:3 29:9,11 71:16 77:19 78:2 86:25 Newfoundland [3] 40:8 65:12 91:6 next [11] 15:3 28:25 29:8 34:17 57:6,9 62:20 71:7 71:15 74:6 88:5 nice [1] 81:18 nicely [1] 11:8 night [1] 69:24 nine [2] 34:10,12 NL [1] 91:9 nobody [1] 62:25 noise [2] 6:16 7:4 nominal [1] 3:3</p>	<p>non-alignment [1] 81:7 norm [1] 84:15 normal [6] 2:24,25 3:3 4:8 5:14,15 normally [4] 11:14 24:4 75:16 89:6 norms [1] 8:10 notch [1] 68:18 note [2] 43:25 44:16 notes [1] 48:5 nothing [2] 57:7 58:2 nothing's [1] 57:9 November [5] 1:1 88:18 90:19 91:4,10 now [59] 1:3,11 4:21 7:16 7:22 8:22 12:21 15:2,14 17:17 18:18 19:10 20:6 20:24 21:20 24:15 25:23 26:3 28:4 36:15 38:23 39:4 41:7 43:12 44:25 46:24 49:5 50:22 54:15 55:6 58:24 59:9 61:19 64:22 65:5,8,17 68:2 69:13,18 71:10 72:12 73:25 75:7 78:1 80:3,12 81:10,16 82:17,23 83:3 83:14 85:6,21 86:7 87:25 88:12 89:16 nuances [1] 13:11 nuclear [1] 78:8 nullify [1] 62:10 number [16] 10:20,23 12:1 18:3 23:7 27:12 48:19 51:8 54:9,10,23 70:17 71:11 82:6 88:16 90:10 numbers [3] 22:8 38:17 90:12</p> <p style="text-align: center;">-O-</p> <p>O'Brien [100] 1:4,6 9:5 9:7,8,12,13 10:3,13,19 11:21 12:5 16:14 17:2,7 18:9,17 19:8,14,23 20:9 20:17 23:1,13 24:22 25:16 26:16,25 27:5,10 27:20 28:2,19 29:22 30:1 30:7,12,20 31:1,18 32:6 32:11 34:6,9,11 35:8,15 35:20 36:1,6,13,19 38:1 39:16,23 40:4,14,20 41:2 41:13,25 43:2,6 44:18 45:12,17,22 46:3,10,23 47:3,9 48:18 49:1 50:3 51:5,13,19 52:3,16,23 53:20 54:19 55:2 57:11 57:16,23 58:8 60:17,25 61:5,15 62:2 63:8,12 64:6,12,24 66:3 74:1 objectives [1] 19:24 observation [1] 78:1 observed [1] 4:4 observers [1] 2:3 obviously [2] 47:21 77:7 occur [2] 13:9 74:9 occurred [2] 13:13 64:9</p>
---	--	--	--	--

<p>off [7] 5:21 31:11 34:16 54:22 76:20 79:19 86:20</p> <p>offer [1] 76:14</p> <p>offered [1] 53:10</p> <p>office [1] 66:19</p> <p>officer [1] 9:17</p> <p>offshore [9] 6:14 8:14 10:8 29:1 30:18 31:22 37:20 39:8 62:18</p> <p>often [5] 2:12 7:15 75:23 76:5 82:1</p> <p>oil [5] 17:14 29:1 30:18 37:20 39:8</p> <p>old [1] 86:23</p> <p>older [1] 87:6</p> <p>once [2] 24:23,23</p> <p>one [76] 1:14 2:4,25 8:12 9:22 10:5 14:20 15:21 16:5,16 20:25 21:19 23:11,16 25:8 26:22 27:12,23 28:3 29:25 32:17,25 34:5 35:11 36:2 36:7 37:20,21 38:15 39:25 40:15,17,23 41:5 43:12,16,18,19 44:24 45:2 47:14 48:5 51:14 52:10 53:12 54:9 55:12 56:13 58:22,25 59:10 66:24 67:20,22,25 68:25 69:2,7,14,18 70:15 71:7 71:15 72:9 73:5 75:24 76:5 77:11 80:1 83:14 84:6 85:9,21,23 86:18 87:1</p> <p>ones [5] 14:16 28:6 31:2 34:12,16</p> <p>open [5] 5:22 50:13 54:6 54:6 55:13</p> <p>openly [1] 51:4</p> <p>operated [1] 37:15</p> <p>operates [1] 33:8</p> <p>operating [2] 70:20 86:4</p> <p>operation [2] 4:3 29:18</p> <p>operational [18] 11:6 14:3,12,21 18:2 21:5 22:6 24:18 51:20 74:4 75:15 78:25 79:10,11 80:15 81:12 83:8 84:25</p> <p>operations [4] 7:19 29:14 40:10 49:8</p> <p>operator [9] 17:10,12 17:14 21:1,11,19 24:17 42:3 48:22</p> <p>operators [7] 70:5,6,11 71:4,15 86:3 87:16</p> <p>opinion [1] 33:11</p> <p>opportunities [1] 50:17</p> <p>opportunity [7] 6:2,12 8:5 19:1 28:14 35:4 39:14</p> <p>orange [4] 3:21 4:16,24 5:5</p> <p>order [5] 47:21 54:6 79:17 80:22 88:21</p> <p>organization [24] 17:16 19:2,6 20:22 21:2,12,17</p>	<p>21:25 22:7,10 24:6 49:10 49:15,17,25 54:16 55:10 56:6 77:22 80:7,21 81:4 82:17 84:5</p> <p>organizational [5] 17:19,21 21:22 75:15 83:4</p> <p>organizations [5] 32:4 32:21 34:24 49:23 87:5</p> <p>organized [1] 17:8</p> <p>orientated [1] 23:20</p> <p>original [1] 15:15</p> <p>ours [1] 70:25</p> <p>outcome [3] 13:2 23:22 60:14</p> <p>outcomes [1] 42:11</p> <p>output [2] 82:16,24</p> <p>outside [7] 3:2,5 16:24 56:6 81:17,19 84:14</p> <p>overcast [1] 60:4</p> <p>overhead [2] 3:20 5:1</p> <p>overseas [2] 3:19 30:19</p> <p>oversight [3] 18:1 24:5 87:21</p> <p>overt [2] 53:7,8</p> <p>own [6] 44:1 52:9,10,13 73:6,7</p> <hr/> <p style="text-align: center;">-P-</p> <hr/> <p>pace [1] 1:15</p> <p>Pack [1] 41:1</p> <p>package [1] 87:4</p> <p>page [4] 67:18,18,24 74:5</p> <p>panels [1] 50:17</p> <p>papers [1] 33:2</p> <p>paperwork [1] 32:22</p> <p>parachute [2] 85:23,25</p> <p>parachuters [1] 86:21</p> <p>parallel [1] 78:11</p> <p>parallels [1] 78:3</p> <p>park [1] 10:23</p> <p>part [7] 12:12 37:7 41:14 52:8 78:23 79:2 86:13</p> <p>particular [8] 20:11 36:8 40:8 41:5 42:4 47:14 53:15 57:19</p> <p>particularly [2] 16:25 34:13</p> <p>parties [8] 47:15 48:8 76:14 89:3,4,7 90:7,9</p> <p>parts [1] 68:7</p> <p>passenger [8] 2:6 3:20 3:24 12:15 14:1,8,17,19</p> <p>passengers [8] 1:21 2:21 2:23 3:8 6:7 7:15 15:1 88:17</p> <p>past [1] 36:3</p> <p>path [2] 26:1 42:24</p> <p>patient [1] 70:1</p> <p>Peet [1] 91:5</p> <p>penalized [1] 56:2</p> <p>pending [1] 58:3</p>	<p>people [50] 2:9,14 5:11 5:25 7:3,23,24 8:2 11:23 12:8,17 14:17,24 19:15 19:24 20:12 23:23 33:7 34:24 35:6 43:15 47:22 47:23 48:3,4,11 49:25 50:5,9 52:7,11 53:4 54:2 54:6,23,25 58:1,3,13 61:8,12 62:17,24 66:5 71:22 73:18 78:14 80:14 83:24 89:18</p> <p>people's [5] 20:2 48:13 48:16 57:5 60:6</p> <p>percent [3] 21:18 80:4 80:20</p> <p>percentage [1] 68:4</p> <p>perception [1] 33:12</p> <p>perhaps [12] 26:22 38:3 46:6,6 52:9 61:15 67:4 67:11 73:6,13,18 77:11</p> <p>period [3] 28:25 37:21 83:14</p> <p>person [1] 88:21</p> <p>perspective [8] 3:6 24:14 28:18 49:21 60:16 68:22 81:10 84:25</p> <p>phase [1] 47:12</p> <p>picked [5] 21:1 22:9 42:19 51:8,8</p> <p>picture [1] 38:18</p> <p>piece [8] 23:6 36:21 47:13 48:20 52:8,24 53:15 63:14</p> <p>pieces [2] 31:6 36:2</p> <p>pigeonholing [1] 12:23</p> <p>-pills [2] 69:11,13</p> <p>pilot [18] 4:19 5:8 7:10 9:14 49:7 51:14,23 55:23 56:1 57:1 75:10,10,11 80:17 81:1,6 83:4,20</p> <p>pilot's [2] 51:15 54:22</p> <p>pilots [10] 2:1 6:21 22:14 22:17 23:8 56:19 72:3 80:8,9 84:5</p> <p>pin [1] 20:5</p> <p>place [15] 14:16 15:6 16:18 17:23 21:14 22:4 22:5 23:4 29:18 37:19 53:25 56:12 84:23 85:20 91:5</p> <p>places [1] 38:4</p> <p>plan [1] 26:8</p> <p>plane [1] 12:15</p> <p>planes [1] 86:3</p> <p>planning [1] 34:20</p> <p>play [4] 2:15 17:17 51:10 52:5</p> <p>players [1] 87:15</p> <p>plays [1] 51:23</p> <p>pleased [1] 46:19</p> <p>plot [1] 12:24</p> <p>Plus [1] 52:24</p> <p>point [3] 25:8 42:21 46:13</p> <p>points [2] 8:22 33:15</p>	<p>pool [3] 22:15 23:8 31:25</p> <p>poor [1] 69:24</p> <p>pop [2] 4:24 5:5</p> <p>position [1] 53:23</p> <p>possibility [1] 58:10</p> <p>possible [2] 16:16 23:14</p> <p>possibly [5] 1:20 11:2 39:10 52:15 60:10</p> <p>post-graduate [1] 78:19</p> <p>postmark [1] 63:3</p> <p>potential [2] 16:9 74:8</p> <p>potentially [2] 8:4 13:8</p> <p>powerline [1] 8:6</p> <p>practical [4] 18:1 21:5 85:21 87:12</p> <p>practicality [2] 26:9 61:12</p> <p>practice [7] 7:19 14:6 30:17,18 74:25 75:13 78:25</p> <p>practices [3] 82:16 85:4 85:5</p> <p>practising [1] 72:4</p> <p>pre-existing [1] 13:3</p> <p>predominantly [2] 68:8 71:17</p> <p>preface [1] 77:11</p> <p>premise [1] 18:22</p> <p>premise [1] 75:22</p> <p>prepare [1] 9:24</p> <p>prepared [3] 73:2 75:1 75:12</p> <p>present [1] 13:12</p> <p>presented [2] 19:17 26:13</p> <p>prevent [2] 13:16 60:1</p> <p>prevention [1] 31:16</p> <p>previous [1] 48:11</p> <p>primary [1] 42:13</p> <p>principles [1] 3:8</p> <p>prioritize [1] 25:21</p> <p>priority [4] 89:3,13,20 90:11</p> <p>Pritchard [2] 65:11,14</p> <p>private [4] 59:5 86:2,5,6</p> <p>problem [5] 20:11 73:1 73:19,20 90:2</p> <p>procedure [2] 41:14 57:24</p> <p>procedures [6] 15:9 53:24 61:2 62:7 83:2 84:17</p> <p>process [49] 13:7 14:24 15:1,10 22:11 23:4,12 23:17,20 25:7,12 26:3,6 26:19 37:5,12,25 39:11 41:21 44:6 45:6 46:22 47:11,20,25 48:17 51:10 54:5,13 56:11,14,15,17 59:14 63:25 64:13 77:17 79:8,9,14,15 80:16 81:5 81:14,24 82:3,18,24 87:14</p>	<p>processes [8] 15:4 17:23 18:6 21:2 32:23 35:3 83:24 84:23</p> <p>production [1] 29:9</p> <p>professional [2] 4:5 49:20</p> <p>profile [40] 9:24 10:5 11:3,15 12:25 13:5,20 15:17,18,21 17:4,10,12 21:1,11 23:22 24:2,8,24 25:9 26:8 37:1,1 42:23 43:1 44:5 66:14 68:3 70:20 73:19 75:17 81:12 81:20,20 83:13 84:15 85:22 86:1,11,13</p> <p>profiles [3] 10:15 79:5 80:3</p> <p>profiling [5] 15:7 19:24 34:4 85:2 87:18</p> <p>program [1] 78:18</p> <p>progress [1] 79:24</p> <p>project [5] 21:14 78:13 78:15,19,22</p> <p>projects [1] 78:14</p> <p>properly [3] 4:25 16:19 16:22</p> <p>propose [1] 10:9</p> <p>proposed [2] 25:14 26:5</p> <p>proposes [1] 25:17</p> <p>proposing [1] 77:23</p> <p>protected [2] 48:16 54:10</p> <p>protection [4] 6:15 59:2 59:4,8</p> <p>protocols [3] 3:11 5:18 7:8</p> <p>provide [7] 2:22 6:3 24:6 66:24 71:8,13 88:15</p> <p>provided [2] 32:3 63:14</p> <p>provider [2] 85:10 90:3</p> <p>providers [2] 29:20 71:11</p> <p>provides [1] 25:13</p> <p>providing [3] 1:17 63:15 84:22</p> <p>province [2] 65:15 77:15</p> <p>public [8] 27:3 45:2 62:17 76:15 77:13 89:10 89:11,15</p> <p>publicly [2] 24:3 76:11</p> <p>pulling [1] 43:24</p> <p>purchasing [2] 71:18 71:22</p> <p>purpose [2] 7:6 58:22</p> <p>purposes [1] 2:22</p> <p>push [1] 22:20</p> <p>put [11] 11:11 15:9 24:8 35:5 47:23 48:5 55:14 55:18 57:9 58:21 68:21</p> <p>puts [1] 57:2</p> <p>putting [2] 56:3 57:6</p> <hr/> <p style="text-align: center;">-Q-</p> <hr/>
--	---	--	--	---

Q.C [26] 65:20,21 66:2
66:20 67:3,17 68:9,13
69:1,6,10 70:13,23 71:3
72:6,20,25 73:12,17
74:11,19 75:21 76:3,9
76:22 77:4
qualified [1] 58:25
quality [1] 82:4
questioning [2] 9:6
65:19
questions [9] 1:4 48:19
64:14,25 65:11,13,15
74:2 77:6
quick [1] 81:22
quite [11] 4:4 6:23 11:7
24:15 33:8 43:17 50:14
54:16 85:7,8,11
quote [1] 38:11

-R-

rack [1] 43:22
raise [2] 3:12 5:19
raised [5] 8:22 62:22,24
63:7 64:14
range [3] 10:23 13:18
19:5
rank [1] 53:9
ranked [2] 67:7 68:14
rapidly [1] 78:23
rare [1] 75:2
rather [3] 79:20 82:19
85:3
rattling [1] 31:11
raw [1] 48:6
RDA [1] 33:19
re-divert [1] 83:19
RE-EXAMINATION
[1] 65:20
re-look [1] 29:17
reacting [1] 51:16
read [2] 24:7,9
reader [2] 24:11,20
ready [1] 9:6
real [5] 3:7 16:23 74:25
84:3 87:12
realistic [1] 33:14
reality [2] 60:5 66:12
realize [1] 61:11
really [50] 1:25 2:21 3:1
3:5 4:11 5:4,13,22,24 7:7
7:14,20,24 9:19 11:7,16
13:12,24 14:12 15:13
16:6 17:18 19:25 20:5
22:21,23 33:21 34:19
38:18 40:17 42:22 43:9
43:11 44:5,12 46:25 49:9
49:24 54:5 56:22 60:7
60:10,14 62:4 74:3 77:11
79:1 80:6 81:6 86:23
reason [6] 13:10 28:11
37:3 43:12 44:14 48:6
reasons [3] 13:19 43:19
76:6
reassess [1] 3:6

recap [1] 39:17
receive [1] 90:10
received [1] 8:23
recent [1] 44:24
recommend [3] 10:9
25:17,18
recommendation [2]
25:20,21
recommendations [7]
9:22 25:2,3,9,10 26:2,15
recruit [1] 22:14
recruitment [1] 23:17
reduce [2] 25:25 79:17
reduced [1] 84:8
reducing [1] 10:9
refer [2] 55:16 81:12
reference [5] 12:21 14:4
50:20,21 61:21
referenced [1] 59:10
referred [4] 1:25 21:4
48:7 65:6
regardless [2] 2:18
37:21
regime [4] 68:4 83:3,20
86:7
regular [1] 80:5
regulations [3] 1:24
59:5 88:25
regulator [4] 24:4 70:11
87:10,20
regulators [1] 38:25
regulatory [2] 24:14
86:7
related [2] 42:2,4
relationship [1] 74:3
release [1] 37:2
released [8] 24:1,3 37:13
45:10,19 48:9 51:1 76:11
releases [1] 40:16
releasing [1] 61:25
relevant [4] 34:13 41:4
46:6 73:14
reliable [1] 89:24
reluctance [1] 66:9
reluctant [3] 52:13 58:4
61:12
remain [1] 2:19
remaining [1] 65:17
remark [1] 77:12
remember [1] 77:12
remove [1] 54:15
repetitive [1] 44:3
replace [1] 86:24
report [12] 24:1 37:2
40:1,16,17 41:9 42:12
46:4 52:13 56:10 57:2,6
reported [1] 52:25
reporting [7] 51:23 55:6
55:10,13,17,25 56:5
reports [4] 37:12 45:9
56:8 82:6
representing [2] 9:14

53:16
represents [1] 53:22
reputation [1] 33:25
request [1] 46:14
required [1] 85:16
requirement [1] 86:4
requirements [2] 16:25
70:9
rescue [5] 80:3 81:11
82:1,20 83:16
research [1] 33:2
resolved [1] 74:10
resource [7] 2:7,12 5:10
5:10 72:9 83:18,19
resources [1] 1:16
respect [2] 50:21 72:10
response [1] 17:15
responsibility [1] 59:22
rest [1] 26:23
restrict [1] 81:16
restricted [1] 71:17
restrictions [3] 47:19
49:18 50:2
result [2] 12:13 63:24
results [4] 19:11 47:13
48:2 62:5
retained [1] 9:19
returned [1] 42:10
reveal [1] 63:6
review [7] 27:23 32:16
32:17,18,20,25 70:7
reviewed [1] 48:7
reviews [2] 42:20 82:5
revisit [1] 37:6
revisiting [1] 37:1
rig [2] 14:14 79:11
right [39] 3:11,25 4:5,17
5:17,18,24 6:13,25 9:22
16:10,11 25:5,7 30:11
33:10 35:6,19 36:3,5
39:19 40:13,19 42:25
57:12 65:8 68:10 69:9
69:13 71:2,2,13 73:16
76:2 80:13 82:2 83:9
85:14 90:16
rigor [1] 85:19
rigs [1] 7:17
risk [126] 3:1,6 4:6 9:24
10:4,15 11:3,14,25 12:10
12:12,12,25 13:3,5,6,12
13:20 14:21 15:7,17,18
16:12,16,20 17:3,9 18:19
19:18 21:1,20,21,22 22:2
23:4,5,21 24:2,7,10,24
25:9,14,25 26:3,8,8
27:15,22 28:8,13,14,17
29:4,15 30:15 31:4,7
32:14 33:3,17,19,21,22
33:24,24,25,25,25 34:1
34:3 36:20,25 42:23 43:1
43:13,16 44:6 46:11
47:12 49:11,11,20 66:14
67:9,25 68:2,2,3,10,12
70:19 71:17 72:21 73:1
73:19,25 74:6,9,16 75:6

75:16,17 77:15,16,17,18
78:2,4,9,12,21 79:5,7,14
79:17,23 80:15 81:12,22
85:1,22 86:1,13 87:1,17
risks [23] 5:14 10:7,10
10:20,24 11:10,13,14
12:2,7 13:3 15:16 17:19
18:25 19:4 22:11,12,22
23:14 24:17,18 25:4 67:6
road [1] 79:16
Robert [2] 88:8,8
Rogers [1] 89:18
Roil [32] 34:22 35:4 51:8
65:20,21 66:2,20 67:3
67:17,23 68:9,13 69:1,6
69:10 70:13,23 71:3 72:6
72:20,25 73:12,17,23
74:11,19 75:21 76:3,9
76:22 77:4,10
role [9] 2:4,11,15 4:2
17:17 51:10,15,22 52:4
roles [1] 59:22
roll [1] 26:11
room [9] 27:3 58:1,16
76:14 88:22,24 89:8,12
89:14
root [1] 13:24
rotor [1] 84:11
routed [1] 55:20
rows [1] 4:22
Royal [1] 72:13
rumour [1] 66:12
run [2] 5:1 22:19
running [1] 17:24

-S-

S-92 [2] 7:2 38:15
S-92A [1] 38:3
S-92s [1] 38:9
safety [29] 1:19 4:6 15:22
15:25 16:4,6,17 19:19
21:21 23:24 33:25 37:12
38:23 50:15 51:2,10 52:5
52:8 55:6,12 71:8,9
76:20,23 77:14 78:9 81:9
82:5 84:3
sat [2] 3:23 4:8
satisfied [1] 58:13
saw [3] 3:9 38:15 68:19
says [2] 27:15 63:21
scan [6] 28:10,12,15,20
28:22 29:7
scattered [1] 38:12
scenario [3] 69:19 70:8
79:10
scenarios [4] 69:21 70:2
70:7 75:2
scheduled [1] 88:7
school [1] 54:13
science [3] 31:9 78:8,19
scientific [1] 24:9
screened [1] 14:25
screening [1] 14:17

search [9] 37:17 77:2
80:2,24 81:2,11,25 82:20
83:15
seat [3] 6:20 90:10,12
seating [2] 90:8,9
second [6] 45:3 68:18,23
70:5 82:16 89:21
secret [1] 61:9
section [2] 49:10,14
sector [1] 85:7
sectors [2] 2:2 39:8
security [6] 12:14 14:2
14:8,11 16:2 52:19
see [16] 4:15 11:8 13:5,6
14:5 23:19,22 37:23
39:15 40:6 41:16 75:13
83:7,21 84:2 87:8
seem [2] 3:24 5:17
seized [1] 40:22
selection [2] 17:25 83:5
self [1] 8:3
self-improvement [1]
59:25
self-reporting [1] 52:9
senior [1] 49:6
sense [4] 11:23 19:4
66:11 78:6
sensitivities [1] 56:23
sentence [1] 10:5
sequence [1] 80:22
series [2] 13:3 75:24
serious [4] 5:6 6:22 67:8
84:10
services [4] 33:9 66:15
68:1 70:16
sessions [1] 34:20
set [4] 25:22 26:23 38:22
54:13
sets [1] 69:23
setting [1] 79:18
shadow [1] 60:4
shape [1] 56:3
share [6] 47:13 48:12
54:9 65:23 67:6 72:18
shared [8] 26:24 47:16
47:18 58:14 61:7,11
63:23 73:8
sharing [1] 47:6
shift [7] 55:1 82:9 83:1
83:13,17,19 84:16
shifting [1] 84:16
shifts [1] 53:10
shiny [1] 86:25
Shortcomings [1] 52:15
showed [1] 31:7
shrink [1] 11:20
side [1] 86:21
sift [1] 62:18
significant [2] 2:15
43:25
Sikorsky [8] 9:15 50:5,7
50:9,12,15,22,24

similar [4] 40:10,10 45:2 78:21	space [1] 89:10	strikes [1] 84:11	31:6,10	touch [1] 33:14
simple [1] 83:22	spaces [1] 89:6	strong [3] 14:16 75:4,4	technique [7] 29:25 30:16 31:4 33:1,10,18 43:17	touched [1] 73:24
simply [1] 12:11	speak [10] 4:12 6:1 8:10 8:24 13:1 49:25 50:1,9 60:8 63:21	structural [2] 13:7 15:18	techniques [6] 21:15 27:16,23 28:9 32:19 43:20	traffic [2] 90:1,4
simulated [1] 70:8	speaking [4] 19:3 38:7 56:18 62:21	structure [3] 12:25 55:21 56:7	teeth [1] 67:11	trained [2] 22:17 23:7
simulator [12] 22:18 23:18 71:11,18,25 72:2 72:4,10,13 73:4,7,8	specialty [1] 78:7	structured [3] 15:5 75:5 75:7	telephone [1] 62:16	training [25] 2:18 17:25 22:18 23:19 35:2 59:18 67:19 68:3,6 69:15,16 69:17,19,20 70:4,8,9 71:9,13 72:4 73:4 83:3,5 83:20 84:17
simulators [2] 68:5 71:16	specific [5] 23:6,21 24:15 37:22 71:25	structures [2] 17:22 32:24	televisions [1] 89:21	trajectory [1] 35:22
sit [4] 16:13 18:4 80:9 83:10	specs [1] 8:1	stupid [1] 5:3	telling [1] 58:5	transcribed [1] 91:6
site [2] 34:25 69:24	spectrum [2] 69:17 71:9	stupidity [1] 5:20	ten [4] 78:16,22 80:8 85:5	transcript [1] 91:3
sites [1] 29:11	speculate [1] 66:9	submit [1] 9:24	term [2] 2:12 30:9	transcripts [2] 27:24 32:16
sits [4] 31:9 59:13 60:19 74:6	speculation [1] 66:10	submitted [1] 56:10	terminology [1] 2:6	transpire [2] 15:10 74:17
sitting [3] 3:19 4:20 65:8	spend [3] 1:17 81:21 83:18	successful [1] 81:3	terms [40] 4:7 13:1 14:8 15:20 16:2 17:12,17 19:4 21:7,9 25:8,20 26:12 31:12 37:8 38:17 39:12 41:19 42:7 49:4,22 50:11 50:20,21,22 51:16,23 53:9 55:7 57:17 61:21 67:8 68:14 69:13 71:19 74:22 78:2 79:4,13 80:22	transportation [1] 10:8
situation [3] 5:3 21:24 73:14	spent [1] 34:22	such [2] 33:24 74:24	testifying [1] 27:21	transporting [1] 69:25
situational [2] 5:13 7:22	spoke [1] 33:4	suggest [1] 20:10	testimony [2] 9:18 15:3	travel [2] 1:21 14:18
situations [3] 73:3 74:24 75:2	spoken [1] 77:17	suggested [1] 67:9	thank [17] 1:13 6:10 9:4 9:4 64:25 65:3,5,17,22 67:2 77:5,10 87:24 88:4 90:14,16,17	travelled [1] 6:11
six [2] 22:21 38:16	sponge [1] 57:10	suit [1] 6:15	thanks [1] 4:17	travellers [1] 66:6
sixth [1] 13:23	sponsored [1] 87:3	suitability [1] 83:7	theory [1] 75:25	travelling [3] 3:14 86:10 88:20
size [3] 29:16 89:8,12	sponsorship [1] 87:19	Suite [1] 91:5	there'll [1] 29:15	treatment [6] 25:14 67:9 69:14 73:25 79:23 87:2
skewed [1] 82:22	spot [1] 44:11	suits [2] 7:4 21:8	therefore [1] 22:19	trees [1] 84:11
skill [1] 69:22	spread [1] 85:14	supervisor [1] 55:23	they've [1] 81:25	tremendous [1] 88:14
slice [1] 49:14	St [2] 91:5,9	supported [1] 85:19	third [2] 68:20 82:24	tries [1] 73:20
slide [3] 27:12,12 36:25	stack [3] 43:22,22,23	supported [1] 38:25	thought [2] 3:24 4:11	trigger [1] 3:5
slides [1] 14:4	staff [3] 23:18 56:18 59:17	suppose [1] 45:14	thoughts [1] 9:3	triggers [3] 3:4 28:16 81:21
slightly [2] 8:8 80:12	stage [10] 18:22 34:15 42:10 61:16,18 62:4,8 64:5 83:12 85:9	surprised [1] 38:12	three [13] 3:18 4:22 12:22 20:23 23:11,14 28:25 29:9,11 34:17 45:4 69:7 83:23	true [1] 91:3
small [4] 54:16 73:6 80:6 85:8	surrounding [1] 38:2	surveys [1] 75:11	through [26] 5:2 8:21 9:4 13:25 17:24,25 18:1 24:16 30:2 32:14,22 35:1 46:19 49:9 51:1 55:20 55:22,22 57:4 60:13 64:13 75:8 78:25 80:15 89:20,22	trust [3] 54:8 56:23 62:13
SMS [2] 15:24 16:17	survey [1] 33:15	survivor [1] 88:9	theory [1] 75:25	trusted [2] 56:21 58:20
so-what [1] 82:25	surveys [1] 75:11	swiss [4] 14:7 17:20 24:16 75:25	there'll [1] 29:15	truth [1] 60:22
Society [1] 72:14	surrounding [1] 38:2	system [14] 8:19 14:23 15:21,23 16:5,18 55:11 55:13,14,17 56:5,16 81:9 84:3	thanks [1] 4:17	try [1] 11:23
software [1] 78:18	survey [1] 33:15	systematic [1] 13:25	theory [1] 75:25	trying [5] 13:15 65:23 66:4,6 85:3
sole [1] 44:10	surveys [1] 75:11	systemic [1] 59:16	there'll [1] 29:15	TSB [13] 36:9,16 37:2,3 37:13 39:2,24,25 40:16 41:7 44:22 45:19 50:12
solution [3] 73:7,21,24	survivor [1] 88:9	systems [6] 16:7 19:19 19:20 32:23 86:17 89:23	therefore [1] 22:19	TSB's [2] 42:11 46:4
solutions [4] 25:14,18 25:24 26:5	swiss [4] 14:7 17:20 24:16 75:25	tagged [2] 47:24 48:14	they've [1] 81:25	TSBs [1] 41:9
someone [5] 4:3 14:9 45:23,24 63:14	system [14] 8:19 14:23 15:21,23 16:5,18 55:11 55:13,14,17 56:5,16 81:9 84:3	tail [1] 84:11	third [2] 68:20 82:24	turn [2] 21:23 65:5
sometimes [7] 13:22 24:11 47:23 48:13 66:10 89:23,25	stand [1] 43:25	Taker [1] 49:11	thought [2] 3:24 4:11	turned [1] 4:25
somewhat [1] 52:6	standard [1] 33:1	takes [4] 29:18 35:22 56:12 57:5	thoughts [1] 9:3	Turner [124] 1:9,12 6:24 7:13 8:16,25 9:7,9,10 10:1,11,17 11:1 12:3,20 16:21 17:5,11 18:15,21 19:12,21 20:7,15,20 23:9 23:15 25:6,19 26:18 27:11,18,25 28:7,21 29:24 30:5,10,14,22 31:3 31:23 32:9,13 34:8,14 35:13,18,24 36:4,11,17 36:23 38:5 39:21 40:2 40:12,18,25 41:11,18 42:6 43:4,8 44:23 45:15 45:20 46:1,8,12 47:1,7 47:17 48:24 49:3 50:6 51:11,17 52:1,14,21 53:18 54:3,21 55:4 57:13 57:21 58:6,17 60:23 61:3 64:8,10,18 65:2,20,23
somewhere [1] 46:17	Standards [2] 49:12,13	taking [1] 64:4	three [13] 3:18 4:22 12:22 20:23 23:11,14 28:25 29:9,11 34:17 45:4 69:7 83:23	
Sooley [1] 91:11	start [11] 13:14 15:21 22:22 29:10,12 31:11 33:23 34:2,3 43:21 49:5	tangible [5] 18:5,5,6,7 24:13	threshold [2] 11:18,19	
soon [1] 62:19	started [2] 3:21 82:20	tap [1] 39:14	through [26] 5:2 8:21 9:4 13:25 17:24,25 18:1 24:16 30:2 32:14,22 35:1 46:19 49:9 51:1 55:20 55:22,22 57:4 60:13 64:13 75:8 78:25 80:15 89:20,22	
sorry [7] 23:2 32:7 65:7 68:23 69:5 72:7 75:4	starts [1] 83:3	Tara [1] 91:5	ticket [1] 11:17	
sort [11] 8:21 20:10,13 20:18 30:4 40:5 53:7 66:9 67:7,12 77:22	statement [1] 6:5	targeted [1] 24:15	tidying [1] 81:8	
sound [2] 84:24 91:7	states [3] 44:25 48:9 80:2	task [14] 14:13 79:11 80:3 80:11,22,23 81:13,19,20 82:1,14,19 84:15 85:18	tight [1] 85:11	
source [4] 43:11 44:14 89:21 90:6	stats [1] 38:11	tasking [1] 82:20	tightly [1] 6:16	
sourced [1] 51:4	stay [1] 29:2	tasks [4] 81:11 83:15,16 83:16	today [6] 8:24 9:13 12:6 19:11 52:17 88:5	
sources [3] 42:13 44:10 44:11	step [2] 3:2 78:16	team [3] 2:12 5:10 38:23	today's [1] 81:19	
sourcing [1] 46:18	steps [1] 3:5	technical [4] 3:25 13:11	together [1] 48:6	
	stick [1] 85:19		tomorrow [1] 90:13	
	still [1] 48:17		tongue [1] 58:2	
	stills [1] 58:2		took [1] 83:22	
	straight [1] 34:16		top [2] 34:16 67:18	
	strapped [1] 6:16		topic [1] 1:15	
	strategic [3] 11:4 21:4 75:19			
	strategies [5] 25:15 67:9 69:14 79:23 87:2			
	strategy [3] 69:15,16 73:25			
	Street [1] 91:5			

<p>65:25 66:17 67:1,15,21 68:11,16 69:4,8,12 70:18 71:1,6 72:8,23 73:10,15 73:22 74:13,21 76:1,7 76:17,25 77:8,10,25 turns [1] 4:22 TVs [1] 90:6 twice [2] 6:18,19 two [15] 1:17 27:22 28:5 32:19 36:24 37:19 40:7 44:1 45:1 54:10 67:23 70:2 77:12 80:7 84:10 two-year [1] 83:14 type [25] 2:18 8:3 14:2 15:8,16 21:10 22:9 37:15 37:18,21,22 39:11 41:22 42:8 44:1 48:4 71:20,25 72:5 80:4,11 82:10 83:6 86:25 87:11 types [3] 15:20 40:10 86:14</p>	<p>41:1,20 42:15,19 43:23 48:4 53:9 54:7 55:22 56:3 65:18 72:7 77:3 81:8 update [1] 82:7 upfront [1] 82:2 USA [1] 24:1 usage [1] 86:6 used [12] 2:12 24:4 27:16 42:15 43:14 54:11 58:22 58:23 59:13 68:6 83:25 84:4 useful [1] 37:25 uses [1] 33:8 using [1] 67:4 Usually [1] 75:24 utility [1] 16:24</p>	<p>28:13,14 67:10 whistle [2] 53:6 56:7 who'd [1] 53:23 whole [7] 5:9 19:5 28:23 42:21 45:3 80:17 85:6 widely [1] 37:11 willing [1] 48:12 within [15] 1:19,20,24 2:4 4:18 26:2 34:4 37:9 49:23 50:20 59:4 62:20 71:10 79:8 85:24 without [5] 22:20 58:22 60:14 77:20 84:16 witness [2] 66:25 88:7 wondering [3] 28:4 36:7 41:9 word [3] 44:9 54:12 71:4 words [1] 77:15 worked [3] 77:23 79:4 79:13 workers [3] 7:16 8:6,14 workforce [2] 1:21 33:7 works [2] 63:24 75:14 world [9] 37:14,16 38:9 38:13 39:1,6 40:11 66:9 79:1 worthy [1] 43:24 wrap [1] 65:18 wrong [2] 44:9 80:13 www.flightsafety.org [1] 77:1</p>		
<p>-U-</p>		<p>-V-</p>		
<p>Uh-hm [4] 10:18 17:6 43:3 47:2 UK [1] 30:24 ultimate [3] 41:9 46:4 75:22 ultimately [9] 2:20 9:21 10:6,22,24 11:25 13:14 53:7 63:24 uncomfortable [1] 3:10 under [6] 18:4,12,20 36:15 86:2,6 underlying [1] 57:20 undersigned [1] 91:2 understand [22] 5:18 8:1 10:6 11:22 18:12,14 19:9,25 24:25 35:21 40:15,21 42:2 48:1 61:11 63:13 66:8 72:1 73:18 76:12 77:18 88:19 understood [3] 3:11 9:18 10:14 undertake [2] 80:10 81:11 undertaken [3] 79:17 86:12 87:9 undertakes [1] 80:2 undertaking [1] 35:1 underway [1] 79:24 unfortunately [1] 89:9 unintended [1] 60:15 United [2] 44:25 80:2 unless [2] 48:8 62:24 Unlimited [2] 91:12,14 unprepared [1] 74:23 unrelated [1] 88:1 unusual [3] 2:17 73:2 75:1 up [30] 4:12 6:1,20 11:5 11:19 12:1 14:19 17:21 19:10 21:1 22:9 27:17 29:10,12 38:22 40:23</p>	<p>valuable [1] 57:18 value [1] 82:11 variance [1] 37:23 variation [1] 82:6 variations [1] 82:18 various [10] 8:23 31:11 32:14,23 33:2 34:23 37:16 50:17 74:22 86:22 vehicle [1] 69:24 view [4] 5:7 11:4 89:19 89:20 viewers [2] 88:13,23 vis-a-vis [1] 61:22 visibility [1] 57:4 visits [1] 34:25 volume [1] 38:17 vulnerabilities [1] 14:22</p>	<p>years [9] 3:18 29:1,8 38:22 78:13,22 80:13 82:19,21 yesterday [24] 1:14 6:5 9:18 10:14 13:4 17:13 18:3,13 26:3 27:11,21 31:7 33:5 35:11 38:7,15 43:15 44:3 49:11 51:7 65:7,10 68:19 85:24 yet [8] 19:3 26:14 40:21 41:8 63:1 64:5 71:23 78:14</p>	<p>-Y-</p>	
<p>-W-</p>		<p>-W-</p>		
<p>walk-throughs [1] 34:25 wants [1] 49:17 watching [5] 4:10 12:18 19:16 20:13 66:5 ways [2] 10:9 48:15 weather [2] 21:7 69:24 web [1] 90:3 webcast [2] 89:17,22 website [5] 23:25 35:5 76:21,24 77:2 weeks [4] 15:4 34:18 39:3 62:20 WELLS [1] 77:8 Westland [2] 50:24 71:21 whatnot [6] 51:16,25 53:14,22 67:19 68:15 wheel [1] 17:4 whereas [1] 72:16 whereby [2] 73:8 76:16 wherever [4] 21:20</p>				