# **OFFSHORE HELICOPTER SAFETY INQUIRY**

October 21, 2009 Tara Place, Suite 213, 31 Peet Street St. John's, NL

### PRESENT:

John F. Roil, Q.C./
Anne FaganInquiry Counsel
Amy Crosbie/ Canada-Newfoundland and Labrador Offshore John Andrews Petroleum Board (C-NLOPB)
Cecily Strickland/Ian Wallace Hibernia Management and Development Company (HMDC)
D. Blair Pritchett/Denis MahoneySuncor (Petro-Canada)
Alexander C. MacDonald, Q.C./ Stephanie Hickman
Jonathan Tarlton/Mark FreemanDepartment of Transport Canada
Norman J. Whalen, Q.CCougar Helicopters Inc.
Rolf PritchardGovernment of Newfoundland and Labrador
Jamie MartinFamilies of Deceased Passengers
Gerald O'Brien, Q.C./ Kate O'BrienDavis Estate (Pilot) and agent on behalf of Douglas A. Latto for Lanouette Estate (Co-pilot)
Raman BalakrishnanCommunications, Energy and Paperworkers Union Local 2121
Karen Hollett Offshore Safety & Survival Centre, 
Paul Barnes Canadian Association of Petroleum Producers (CAPP)

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1 October 21, 2009	-	1	refer you partway down here to the "Standby"
2 COMMISSIONER:		2	Helicopter Requirements."
3 Q. Good morning, ladies and gentlemen. Are y	ou	3 RO	IL, Q.C.:
4 ready, Mr. Roil?			Q. Yes.
5 ROIL, Q.C.:			. PIKE:
6 Q. Yes, thank you, Commissioner. The eviden	ice	6 (	2. "Operators on the Grand Banks are expected to
7 that we went through yesterday ended off at		7	maintain a standby helicopter dedicated to
8 the pointI spoke to Mr. Pike early this		8	search and rescue on a 24-hour-a-day basis.
9 morning, and he indicated he did want to		9	This helicopter should be equipped with a
10 clarify one of the things he said yesterday	1	0	rescue winch and survival equipment suitable
11 so, Mr. Pike, what issue was it that you		1	for deployment from the helicopter. Personnel
12 wanted to give us further clarification on?		2	trained in the operation of the winch and
13 MR. PIKE:		3	deployment of the survival equipment should
14 Q. I don't feel I was very clear yesterday on the		4	also be available. Provision should be made
15 first response helicopter, and I'd like to		5	for helicopter training time sufficient to
16 sort of explain a little bit more clearly as		6	ensure that helicopter and rescue crews can
17 to what our requirements are in that regard,		7	develop the necessary coordination to operate
<ul> <li>and I'd like to refer you to the guidelines</li> </ul>		8	effectively."
respecting drilling programs.			IL, Q.C.:
20 ROIL, Q.C.:	2		Q. Okay, but my first questionas you read that,
			the word "should" and "should" appears, what
22 bring up on the video screens for those		2	is the expectation? I realize these are
23 present?	2		guidelines. What is the expectation of the C-
24 MR. PIKE:		4 5 MD	NLOPB?
25 Q. I believe we can.		5 MR	. PIKE:
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1 MS. WILLIAMS:		1 (	Q. That this would be in place before we issue an
2 Q. Do you have the exhibit number?		2	authorization.
3 ROIL, Q.C.:			IL, Q.C.:
4 Q. 45 let's try that.			Q. Okay.
5 MR. PIKE:			. PIKE:
6 A. Yes, that would be the one.		6 (	Q. And I refer you further to Appendix E, which
7 ROIL, Q.C.:		7	is "Guidance and Specific Regulatory
8 Q. Okay, do you want to control the screen at		8	Requirements," and we go down further to
9 this point, Mr. Pike?		9	"Helicopter Operations," and I think, as I
10 MR. PIKE:	1	0	mentioned yesterday, "All helicopters must be
11 Q. Yes, and first to Appendix C which deals wit	h  1	1	certified by Transport Canada." "All pilots
12 -	1	2	must be licensed. Helicopter crews, including
13 ROIL, Q.C.:	1	3	first response technicians, should have
14 Q. Okay, I believe we have the microphone. It'	s  1	4	experience with the aircraft being used, and
15 not very close to you. I don't know if you're	1	5	experience with offshore operations in similar
able to move a little bit or move the	1	6	environments. Adequate flight time must be
17 microphone just so that we can make sure that	at  1	7	provided for first response practice and
18 you're being picked up clearly.	1	8	drills." "The aircraft should be of the
19 MR. PIKE:	1	9	multi-engine design and should be capable of
20 Q. Okay.	2	0	landing on water in at least moderate seas,"
21 ROIL, Q.C.:	2	1	and we talked a little bit about the flight
22 Q. Speak up a little louder too so I can hear you	2	2	following, and then "the aircraft must be
23 from here.		3	capable of communication with the shore base,
24 MR. PIKE:		4	the drilling installation, supply boats, and
25 Q. Appendix C deals with contingency plans, ar		5	lifeboats," and then it goes on with the
	1		

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1	further requirements that we had been		1		the monitoring starts, and this is done
2	discussing yesterday on helicopters, so aga	in	2		through various means. There are daily
3	pointing out what the first response piece is	8,	3		reports, which are filed by the operator and,
4	and I think this is a little clearer than my		4		as the name suggests, on a daily basis. They
5	explanation yesterday.		5		provide a summary of the daily activities and
6 ROIL,			6		would highlight any abnormal occurrences.
	So in the event of an incident involving an	n	7		They would also include information on
8	offshore helicopter going to or from an		8		logistics, and by logistics we would refer to
9	offshore installation, where is the first		9		the support functions for the offshore
10	response to an incident expected to come fi	rom?	10		operation, and they would include the transfer
11 MR. P			11		of personnel, so it would include information
12 0.	It would be from the helicopter provider.		12		on what helicopter flights would have arrived
13 ROIL,	· ·		13		during that day, and also the vessel activity,
	From the contracted provider.		14		the supply vessels that are used to bring
15 MR. P	-		15		provisions and materials to the offshore. We
	From the contracted provider. It would be a	all	16		also receive and require minutes of the Joint
10 Q. 17	part of the risk assessments that we've bee		17		Occupational Health and Safety Committee.
18	talking about as you assess the risks.	,11 		ROIL,	
19	Greater survival can be achieved with quick	ker	10 19		Oh, sorry, before you go on there, to what use
20	response, and in evaluating these things so		20	Q.	are the daily reports, so what, if anything,
20	of the quicker response can be achieved from		20		does the C-NLOPB do with them as you receive
22	the first response provider, so again it		21		them? You receive them on a daily basis first
22	increases the chances of survival for those	<b>`</b>	22		at the office?
23	persons that would be involved in an incide			MR. P	
24 25 ROIL,	<u> </u>	-111.	24 25		We receive them on a daily basis.
		D (	25	Q.	· · · · · · · · · · · · · · · · · · ·
	Olean and what is the first manager la satis	Page 6	1	DOIL	Page 8
1 Q.	5, 1			ROIL,	
2	from which the contractor is required to ha	ve	2	-	Yes.
3	helicopter rescue operations?			MR. P	
4 MR. P		1.1	4	Q.	And we would file them. These are
	From the current operations we have, it wo	uld	5		requirements under the current regulations, to
6	be St. John's.		6		file these daily reports. In the case of a
7 ROIL,			7		drilling operation there is an international
	Okay, are you satisfied that the issue is now	V	8		standard. They refer to it as a tower sheet,
9	clear?		9		which is filled out each day, and it details
10 MR. P			10		what is happening on the drilling of the rig.
-	Yes, I think so.		11		In cases where we have seen some abnormal
12 ROIL,			12		conditions, we would review those tower sheets
	Okay. In your evidence yesterday, we end	ded	13		over the last number of days to see what was
14	up, I think, with the slide that was dealing		14		progressing and what directions they were
15	with the assessment process, and we were a		15		heading, so it's used as a monitoring tool to
16	to move into the reporting requirements, an		16		see what's happening on the rig offshore. We
17	think that you had told us that the assessme		17		may not look at them on a daily basis, but
18	is prior to an authorization being issued, an		18		when we're notified of an abnormality we would
19	now please explain to us what step in the		19		take a closer look at those data reports.
20	requirements of the C-NLOPB are you taking	g us?	20	ROIL,	Q.C.:
21 MR. P	IKE:		21	Q.	Okay.
22 Q.	See if we can get this slide upokay, we		22	MR. P	IKE:
23	yesterday sort of finished off where we wo	uld	23	Q.	We also receive and require the minutes of the
24	had issued the authorization. We would have	ave	24		Joint Occupational Health and Safety
25	completed the safety assessment process. I	Jam	25		Committees to be provided. This provides us

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1	with an insight of what is happening on th	ie	1	onshore committee which would be employer
2	installation and how it is being dealt with,		2	based.
3	and flags any potential problems. We'll tal	lk	3 ROI	IL, Q.C.:
4	a little bit more about those in a moment, a	nd		Q. And that is because?
5	I think we've talked a little bit about those		5 MR	. PIKE:
6	yesterday.		6 (	Q. An installation such as the Hibernia platform
7 ROII	L, Q.C.:		7	could have as many as 30 different employers,
8 Q	Yes, we will get back to it, sure.		8	somemaybe a third of those with only one
9 MR.	-		9	employee, so it would be less effective if 30
10 Q	. There's also a monthly statistic report filed		10	different employers either had a committee of
11	with our office and reviewed by our staff, a		11	their own or a safety representative.
12	we'll talk a little bit more about that. All		12 ROI	IL, Q.C.:
13	incidents are required to be reported within	n	13 (	2. I think perhaps we might want to clarify the
14	24 hours. More significant incidents are		14	number of employers because we don't have any
15	required to be called in to our duty officer		15	evidence yet on how the operators operate, but
16	of the day, and that's a 24-hour, 7-day-a-		16	perhaps just clarify what kind of contractors
17	week, 52-weeks-of-the-year phone that y	/ou	17	are out there?
18	would phone in to, and a follow-up report		18 MR	. PIKE:
19	required within 14 days of the incident, and		19 (	Q. Well, let's take the Hibernia installation for
20	we like to hold the operators to those 14		20	an example.
21	days, but there are occasional circumstance			IL, Q.C.:
22	where it may take longer to investigate ar			Q. Yes.
23	incident, and we'll talk a little bit more		23 MR	-
24	about those.			Q. They also include drilling operations. They
25 ROII			25	would have a drilling contractor. In their
		Page 10		Page 12
1 Q	Okay, so these are the reporting requirements	luge 10	1	case it is Noble Drilling who would provide
2	in a synopsis form.		2	personnel on board. There would be a fairly
3 MR.	• •		3	substantial number of employees in that case.
	. In a synopsis form, yes.		4	In addition they would contract services,
5 ROIL			5	something they refer to as fabric maintenance.
	. Okay.		6	They would be people that would do some of the
7 MR.	-		7	scaffolding work and whatnot. They would have
	. We talked a little bit yesterday about the		8	a group of people, and that number may vary
9	Joint Occupational Health and Safety		9	with that particular supplier. Even in the
10	Committees. "Joint Occupational Health and		10	drilling world there would be specialist
11	Safety Committees play an important role in		11	services, the mud systems on the drilling
12	the Canadian health and safety law. The		12	units would have their contractor associated
13	establishment of such Joint Occupational and		13	with the supply of the mud systems, and some
14	Safety Committees is one of the important		14	of the otheras they go through completions
15	elements of the internal responsibility		15	of a well, there are specialized companies
16	system, which encourages input from both		16	that deal with the completion of an offshore
17	workers and management in addressing workpla		17	production well, so each of these employers
18	health and safety issues. These entities are		18	would have employees on board. They may not
19	a legal requirement and are intended to		19	have their own supervision on board. The
20	involve workers and management in reducing		20	contractors may come under the supervision of
20	workplace accidents and improving workplace		20	another employer or the operator themselves.
22	health and safety. The committees on offshore		22	This is a model that has been used quite
23	installations operate as workplace committees,		22	effectively in the North Sea, and we tend to
23	and we talked a little bit about that		23 24	set it up on the basis of worker
24	yesterday, in contrast to the traditional		24 25	representatives elected from various
L <sup>23</sup>	jesterauj, meentrast to the traditional			

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1	constituencies, and by "constituencies" I mean	1		industry would use. Are there any challenges
2	you can break the installation up into the	2	2	in getting them together as a group of one?
3	accommodations, so those employees involved in	3	MR. P	
4	maintaining the accommodations would have a	4		As indicated, during the annual workshops we
5	representative on this committee. Those	5		actually hold two and we're able to then
6	involved in the maintenance function would	6	5	capture both rotations of offshore workers
7	have an employee represented on that	7		and, you know, at these meetings we discussed
8	committee. If there's production going on,	8		issues of concern and share best practices
9	there would be a representative from the	9		that have been going on. I think they've been
10	production piece, and if you were drilling it	10		reasonably successful.
11	would be from the drilling. So again as		ROIL,	-
12	indicated it's a successful model that's been	12		So again now to what purposesorry, does the
12	used in the North Sea, and we've seen a good	12		C-NLOPB sit on these Joint Occupational Health
13	success with it here as well. It's a	13		and Safety Committees?
14	committee like any other committee. Its		MR. P	-
1	effectiveness is very much dependent on those	15		No, these would be workplace committees. They
16	people who sit on it. We work with the			- · ·
17		17		are internal to the workplace.
18	committees to encourage and support them in		ROIL,	
19	their work. These committees are an important	19		Okay, but the committee minutes are sent to
20	tool to assess and review what is happening on	20		you, are they?
21	a day-to-day basis in the workplace. In		MR. P	
22	addition, we hold an annual workshop which	22		They are.
23	brings together the Joint Occupational Health		ROIL,	-
24	and Safety Committees from each installation,	24		Okay then, for what purpose then do you
25	and we bring them together once a year, or	25	i	receive them, or what do you do with them when
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1	actually twice a year, to cover off both	1		you get them?
2	rotations.	2	MR. P	
3	ROIL, Q.C.:	3	Q.	We would monitor them again to note what
4	Q. Sorry, rotations, that's, I think, a new	4	ŀ	issues are being raised in the workplace, and
5	expression for us so -	5	i	to ensure that they're being resolved
6	MR. PIKE:	6	5	effectively.
7	Q. Okay, the work cycle in the offshore here	7	ROIL,	
8	tends to be a 12-hour day and a 21-day work	8	9 Q.	If they are not resolved, what if anything can
9	period, so you would work for 21 days and you	9	)	you do?
10	would be off for 21 days.	10	MR. P	IKE:
11	ROIL, Q.C.:	11	Q.	We would follow up with an inspection or an
12	Q. And when you're off you come ashore.	12	2	audit and take a look at those incidents
13	MR. PIKE:	13		ourselves, and if we're not satisfied with
14	Q. You would come ashore, right, so you tend to	14	ļ	what's happening we would raise it as a non-
15	have two groups. We'd like to look at it as	15		conformance.
16	one committee. Occasionally, as I indicated,	16	ROIL,	Q.C.:
17	these are peopleand they don't always do	17		Okay, and who is expected to be the primary or
18	that, but we look at it as one committee.	18		the first addresser of the issues that are
19	Occasionally it may operate as two, but we try	19	)	raised?
20	to get them to work together so they are		MR. P	
21	operating as one committee.	21		It would be the operator. As I mentioned, we
	ROIL, Q.C.:	22		also receive monthly statistical reports.
23	Q. Are there any challenges in getting people who	23		Injury statistics are collected from the
24	are working on alternate shifts, if you will	24		operators on a monthly basis and prepared in a
25		25		report, which must be filed on the 15th of
23	I III not sure it sinit is the word that the	125		report, which must be med on the 15th of

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1	each month. The reports include the number,		1		were relying on this picture to feel that they
2	or what is called exposure hours, the person		2		had a safe facility when in fact they had
3	hours worked, and the number of reportable		3		significant problems in their process safety.
4	injuries. These are injuries that result in a		4		,, Q.C.:
5	person not being able to complete all their		5	Q.	So they were looking back constantly.
6	duties during the next shift. This is further		6		PIKE:
7	broken down into lost time and restricted work		7	Q.	They were looking back, and again, I think, as
8	injuries. The report also gives the number of		8		we go back to our definition of safety, it is
9	medical aids and first aids. The report also		9		the appropriate equipment, proper procedures,
10	includes the number of lost time and		0		and competent personnel. In the case of lost-
11	restricted work days. The number of days an		1		time injuries, all you're looking at is the
12	individual is off will give you some		12		personnel component. You're tending to ignore
13	indication of the severity of the injury. All		13		the procedures and the equipment, and in the
14	the information is kept in a database, which		14		case of Texas City there were failings in both
15	we use for a variety of assessments and		15		those areas.
16	purposes. The data allows the calculation of				<i>.</i> , Q.C.:
17	reportable injury rate per million hours		17		Okay.
18	worked. This rate is used in various reports.			MR. I	
19	It also provides a picture of the workplace		19	A.	Further in Australia, the Longford gas plant
20	safety and health and enables us to determine		20		explosion in September of 1998, two people
21	trends or identify problems. These are		21		were killed. Eight were injured, and the gas
22	generally referred to as lagging indicators,		22		supply was lost to the city of Melbourne and
23	and they are the most common used to measur		23		most of the state of Victoria for two weeks.
24	safety, but they do have their limitations.		24		Their electrical generation was on gas, so
25	Again you're measuring something that has		25		this was a significant event. Again the
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1	already happened as opposed to being in a mod	e	1		Longford gas plant had an enviable lost-time
2	of preventing it, so again they're referred to		2		injury rate, but in hindsight they had
3	as lagging indicators. We have tried to		3		significant issues with their process safety.
4	develop, and are looking at things called		4		So while these are important and we need to do
5	leading indicators, which will give you an		5		it for the protection of the workers, they are
6	advanced sort of warning of what's going on.		6		not the only things, so if you're focusing
7	These are important. They have limitations,		7		only on lost-time injuries you will not get
8	but that's not to say that we ignore them, and		8		the full picture of safety in the offshore or
9	they do involve the injury of people and we		9		in the onshore. A quick point on the exposure
10	certainly don't want to see that but they do,		0		hours, neither the Labour Standards Board or
11	as I indicated, have their limitations, and if		1		the Labour Relations Board governs the working
12	I could take a quote from Tom Peters in his		12		hours on the offshore installation. In the
13	book, "In Search of Excellence," "What gets		13		case of those workers under a collective
14	measured gets done." Putting a measure on		4		agreement, it would be a Labour Relations
15	something is tantamount to getting it done.		15 16		Board. In all other cases, it would be the Labour Standards Board.
16	It focuses management attention on that area. The information is simply made available and			ייסם	
17 18	people respond. The limitation of lost time		17		, Q.C.: So does the C-NLOPB monitor the hours of the
18	injury rates was never so clearly illustrated		18	Q.	offshore workers by itself?
20	as in the cases of the explosion at the Texas			MDI	PIKE:
20	City Oil Refinery in March of 2005. Fifteen		20		No.
21	people were killed and 170 were injured. The				, Q.C.:
22	Texas City Oil Refinery had one of the better		22 23		Okay.
23 24	lost-time injury rates in the United States.			Q. MR. I	-
24 25	Management, and it came out in two reports,		24 25		That would not be one of our primeand I'll
25	management, and it came out in two reports,	4		Q.	That would not be one of our printeand I if

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1	talk a little bit more about that.	1	in terms of the workforce and the amount of
2	ROIL, Q.C.:	2	time that people work?
3	Q. Okay.	3 MR.	
4	MR. PIKE:	4 Q	). It can. Obviously, after you finish 21 days
5	Q. The labour standards legislation has a	5	of work you're anxious to get home after that
6	provision for a day of rest per week with a	6	period, so there are some concerns in that
7	maximum working hour of 16 hours. All	l 7	regard, but it's one of the facts of life when
8	offshore installations, as I noted earlier,	8	you live in Newfoundland that you don't always
9	are on a 12-hour shift and a 21-day rotation,	9	get to travel when you want. That's part of
10	so working offshore for 21 days. When an	10	what shows up in those quarterly reports of
11	exemption is requested from the day-of-rest	11	the Labour Standards Board as the number of
12	provisionso obviously if you're working	12	days that that's occurred and the number of
13	seven days a week you need an exemption fr	om 13	days that folks may have been held over. Once
14	that day-of-rest provisionthat application	14	the fog comes in, there is a protocol in place
15	is made to the Labour Standards Board, and		and each of the operators is slightly
16	when the Labour Standards Board receives o	ne 16	different as to when they would start
17	of those applications, they ask the opinion of	17	transporting people by marine vessel, so if it
18	the Canada Newfoundland and Labrador Offs		looks as though the weather is going to close
19	Petroleum Board, and we would provide th		in for a longer period of time, they would
20	opinion with regard to the safety of the shift	20	start transferring folks by marine vessel.
21	schedule being provided. The Labour Standar		There have been situations, more particularly
22	Board receives a quarterly report from each	22	in the construction mode, where workers have
23	installation under its jurisdiction. They	23	worked for up to 28 days offshore, and
24	forward us a copy of that report, and we woul		reportsthere's no clear evidence around this
25	look at it for trends. Our interest in it	25	piece, but there have been different reports
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1	really comes twofold. While our drilling	1	indicating different problems with this, and
$\begin{vmatrix} 2 \\ 2 \end{vmatrix}$	regulations do have provisions specifying a	2	this is something we've been looking at for a
3	maximum 12-hour shift, another of our	3	number of years, and the different reports seem to be saying different things, and I
4	requirementsthe C-NLOPB interest from the		
5	draft occupational health and safety	5	believe I understand you were in Montreal at a conference and there was some discussion about
6	regulations, requiring that no employee work where the employee's ability to function is	5 6 7	shifts and the hours worked and what issues
7	impaired as a result of fatigue, illness,	8	there were around fatigue. I know the Health
9	alcohol, drugs, or other condition, and again	9	and Safety Executive has done some research on
10	fatigue would be the issue we would be looki		this piece. One of the ones they looked at
11	at with regard to the number of hours worked	-	and concern they raised was something referred
12	and the length of the stay, so we have an	12	to as short-shifting. A worker may go
13	indirect interest. The direct hours would be	12	offshore and started on nights, and then
14	governed by either the Labour Standards or		partway through his 21-day rotation shift over
15	Labour Relations, and we would have an		to days. That was a concern for them, and
16	interest from the standpoint of putting the	16	we've had some discussions with offshore
17	worker at risk.	17	operators, and indeed on the Hibernia platform
	ROIL, Q.C.:	18	now they would run a full rotation, 21 days on
19	Q. Now the Commissioner in his opening statem		nights, rather than do the short-shift and go
20	referred to the fact that he got out to the	20	over to days. Some resistance from the
21	rig, to the facility, and the weather closed	21	workforce initially, but I think everybody is
22	in and he wasn'tthe weather closed in in St.	22	very comfortable with that particular rotation
23	John's, I think, and he was not able to get	23	now, and we encourage the other operators to
24	off for an extra day. Does that kind of issue	24	look at similar-type rotations.
25	involving helicopter transport create issues	25 ROI	L, Q.C.:

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1 Q. Okay, we're getting a little away from o	1 Q. Yes.
2 core mandate.	2 ROIL, Q.C.:
3 MR. PIKE:	3 Q. Okay.
4 Q. Yeah.	4 MR. PIKE:
5 ROIL, Q.C.:	5 Q. And they've also been brought up at our annual
6 Q. And I want to bring us back there a little	6 Joint Occupational Health and Safety meetings
7 bit. With respect to the Joint Occupation	7 as well.
8 Health and Safety Committees and the m	thly 8 ROIL, Q.C.:
9 statistical reports, do those reporting piece	9 Q. Yes.
10 of the entire safety puzzle, do they focus of	10 MR. PIKE:
11 or they able to focus on issues involving	11 Q. Workshops.
12 helicopter transportation?	12 ROIL, Q.C.:
13 MR. PIKE:	13 Q. And, similarly, the monthly statistical
14 Q. Certainly. The Joint Occupational Health	
15 Safety Committee have raised issues w	
16 regard to helicopter transport in the past,	16 MR. PIKE:
<ul><li>everything from concerns with the helico</li></ul>	
18 suits, some concerns related to the	18 piece there. The exceptionwell, no, we
<ul><li>helicopters themselves, and they have nor</li></ul>	
20 been addressed by the operator.	20 monthly statistical report. It would show up
21 ROIL, Q.C.:	21 in incident reporting, and we'll discuss that
22 Q. And so there is not a separate Occupation	
Health and Safetyor Joint Occupation	
24 Health and Safety Committee that is focus 25 the transportation piece. It is a part of the	25 tool that you have in terms of monitoring?
25 the transportation piece. It is a part of the	
1 overall piece	Page 26 Page 24
1 overall piece. 2 MR. PIKE:	
	2 Q. Yes. The operators are required to
<ul> <li>Q. The workers would have it discussed on</li> <li>installation. I can't speak to what Couga</li> </ul>	
	C C
5 may have with regard to their Joint	5 guidelines, and they would define what we
6 Occupational Health and Safety Committee	
7 ROIL, Q.C.:	7 fairly extensive list. If you like, we can
8 Q. That would deal with their employees, w	<b>C V</b>
9 it?	9 quickly run through some of those things that
10 MR. PIKE:	10 we would call an incident.
11 Q. That would deal with their employees.	11 ROIL, Q.C.:
12 ROIL, Q.C.:	12 Q. Okay.
13 Q. Yes.	13 MR. PIKE:
14 MR. PIKE:	14 Q. Now these are relatively new so I'm not as
15 Q. Although there would be another comm	-
16 looking at what was happening wit	16 is actually on the slide. There is a rather
17 transportation, but from a different	17 extensive list in the new guidance,
18 perspective.	18 "fatalities, missing persons, major injuries,
19 ROIL, Q.C.:	19 lost and restricted work day injuries,
20 Q. Yes, but from the perspective of the offsh	20 occupational illnesses, medical treatment."
21 worker issues surrounding helicopte	21 MR. WHALEN:
transportation concerns can, are, and ha	22 Q. Are we going to a -
been brought up at these Joint Occupatio	1 23 ROIL, Q.C.:
-	
24 Health and Safety Committees?	24 Q. Just one second, I'm trying to see if we have

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1 MS. FAGAN:	1	require the reporting of incidents, the
2 Q. I think it's 48.	2	definitions.
3 ROIL, Q.C.:	3 roil,	, Q.C.:
4 Q. Sorry, number?	4 Q.	Just scan back there for a moment. I saw one
5 MS. FAGAN:	5	come up saying "reporting by employees."
6 Q. Forty-eight.	6 MR. P	'IKE:
7 ROIL, Q.C.:		Yes. "When an employee becomes aware of an
8 Q. Number 48. Yes, Number 48. Again	the 8	incident, the employee shall report the
9 registrar will open it for you, and then I	9	occurrence to the operator, employer, or both.
10 think you canthe document that is in from	nt 10	To ensure that the employees report all
11 of you, you can now control, sir.	11	incidents, the operator shall define reporting
12 MR. PIKE:	12	protocols and ensure that a mechanism and
13 Q. Okay.	13	culture are in place that will encourage
14 ROIL, Q.C.:	14	everyone to report. The legislation prohibits
15 Q. You say this is new. The date on it there is	5 15	operators, employers, unions, and other
16 June 1st, 2009.	16	parties from subjecting workers to
17 MR. PIKE:	17	discrimination of any kind for reporting
18 Q. The 1st, yes.	18	health and safety hazards or incidents.
19 ROIL, Q.C.:	19	Operators should ensure that the mechanisms in
20 Q. Okay. Was there a protocol before that an	nd 20	place for reporting do not result in any undue
21 this is a replacement, or is it a brand new	21	hardship for employees." That's a more recent
22 one?	22	addition to the guidance, but it would have
23 MR. PIKE:	23	been already there and just not as clear
24 Q. A couple of notes here, we've done it joint	-	previously.
25 with Canada Nova Scotia Offshore Petro	leum 25 ROIL,	
	Page 30	Page 32
1 Board.		Okay.
2 ROIL, Q.C.:	2 MR. I	
3 Q. Oh yes, I see their logo is on the top of that	_	And it talks in terms of the culture, and one
4 sheet as well.	4	of the things, the recommendations that came
5 MR. PIKE:	5	out of boththe Texas City Refinery explosion
6 Q. Yes, and in addition to that we've combin		recommendations talks in terms of safety
7 the reporting of environmental incidents i		culture, which again talks about the openness
8 this document as well, so it is a joint safety		to be able to report such incidents, and what
9 and environmental document as well.	9	is ingrained in thatwe know culture is sort
10 ROIL, Q.C.:	10	of one of those difficult topics to fully
11 Q. So the expression, "incidents," here woul		define, but it talks in terms of what is the
include environmental incidents and safe	2	accepted norms in the workplace for the way to
13 incidents.	13	behave and the way to work. "The
14 MR. PIKE:	14	investigation team of an incident. The
15 Q. It would.	15	investigation team should include
16 ROIL, Q.C.:	16	representatives of the operator, the facility
17 Q. Thank you.	17	owner, the committee or a representative if
18 MR. PIKE:	18	there is not a committee in place, and other
19 Q. And the requirement to do the reporting.	19	expertise as required. The lead investigator
20 ROIL, Q.C.:	20	should formally be trained," so again a Cougar
21 Q. Yes.	21	work representative in any investigation team,
22 MR. PIKE:	22	and again, we talk about that idea of getting to the root cause of incidents. These are
<ul> <li>Q. Here's the standard parts of purpose and scope, the authorities, referring to some of</li> </ul>		
		some of the other agents that would receive an incident report, the Joint Rescue Coordination
25 the regulations that are being called up to	25	mendent report, the joint Rescue Coordination

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1	Centre, that would be the one in Halifax; the	e	1	phone of that.
2	Marine Rescue Sub-Centre, which is based		2 ROIL	, Q.C.:
3	St. John's; the Canadian Coastguard; Transp		3 Q.	Okay.
4	Canada, Marine Safety; and the RCMP.		4 MR. F	
5	"Emergency Notification," this would be		5 Q.	And again those style of incidents would be
6	something that would be required to be called		6	the ones that would be required to be
7	into our duty phone immediately or as soon		7	immediately reported. Other than that, the
8	possible. A fatality, missing person, major		8	operator can fill out a form and submit it,
9	injury, medical evacuation, or as what's		9	notifying us of an incident within 24 hours,
10	referred to in the industry as a Medevacan		10	and we have established under this new
11	the helicopter provider would be providing	-	11	guidance an e-mail account where an operator
12	those Medevacs. Fire explosion, collision,		12	can file such other reports. That's the
13	loss of well control, major hydrocarbon		13	written notification and it makes reference to
14	release, that's a new reporting piece that		14	our e-mail account on them, where those can be
15	we've brought in and it's based essentially		15	submitted, and I think similarly Nova Scotia
16	from the North Sea. They were looking at w		16	has a similar process, and some of the basic
17	to try to bring up and measure process safet	у,	17	information that would be required on those
18	and one of the proxies that they have		18	reports. The incident classifications, we in
19	established is the release of hydrocarbons.		19	partwe are members of an international
20	It gives an indicator of the state of a		20	regulators forum. It's a group of
21 22	process plant. "Spills Requiring Emergence Notifications," so there's a distinguishing	y	21 22	international offshore petroleum safety regulators who meet on an annual basis, and
22	between the size of the spill which would		22	it's an informal group. It has no formal
23	require immediate notification. "Adverse		23	structure or formal mandate to meet, but we
25	Environmental Conditions," we'll talk a littl		24	meet on an annual basis and look at different
23			23	
1	bit more about that when we hit those.	Page 34	1	Page 36 issues relating to offshore safety. Several
$\begin{vmatrix} 1 \\ 2 \end{vmatrix}$	"Security and Major Damage and Impairme	ont"		years ago we identified a desire to be able to
	L, Q.C.:	ent -		compare some of these statistics in the
	Q. You mentioned in passing there, and I see	it		different regions, and found that the
5	on the screen, a reference to the "duty	n		definitions were very much different in
6	phone." What facility is that and how is the	at		different regions, not unlike trying to
7	maintained?	ut		compare incidence statistics within Canada.
	. PIKE:			Now they're collected differently in each
	Q. We have a officer on duty twenty-four hou	rs a		province so making comparisons becomes
10	day, seven days a week. They carry a cel			difficult, so working with that group we've
11	phone. It also has a back-p voice messaging			developed a series of definitions for
12	system, and they are able to receive calls	0		different incidents, and we've tried to
13	from the offshore on a 24-hour-day, you kr	now,		incorporate those into our latest guidance.
14	365-day-a-year basis.	,		Interestingly enough, there was some
15 RO	IL, Q.C.:			discussion as to how we would relate a
	Q. Okay, and what kind of purposes would	you	16	fatality, but I think it relates more as to
17	expect that that could be used for from tim	ie	17	what is working off shift and on shift.
18	to time?		18	"Missing Persons, a Major Injury," and we have
19 MR	. PIKE:		19	some definitions around that. "Amputation,
20 0	Q. It would beyou know, one of the prim		20	Skeletal Injuries, Burns, Injuries to Internal
21	examples here is that we would have recei		21	Organs, Eyes Injuries," so there's a number of
22	notification on the incident that occurred or			those, and it gives a much better definition
23	March 12th when the helicopter went do			than we had previously on what would be
24	That would be called in to that number, and			required to be reported. "A loss due to
25	would have been notified through the du	ty	25	restricted work day injury and occupational

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1	injury other than a major injury which res	0	1	,	'It's a forecast or an actual physical,
2	in a person being unfit for work any day a		2		environmental conditions, or icebergs, pack
3	the day of occurrence of the injury, or unf		3		ce that may result in or have resulted in
4	for full performance of their regular dutie		4		oads or load effects in excess of those for
5	on the day after the injury." Any days		5		which the offshore installation vessel or
6	includes day of rest, so even if it was their		6	8	aircraft was designed shall be reported to the
7	last day of a 21-day rotation and they we		7		elevant board by an emergency notification
8	injured, if they would not have been able,		8		process in Sectionthe relevant boards shall
9	the next day had been a regular work day		9	-	also be notified by the emergency notification
10	perform those duties, that would also b		0		process if precautionary measures such as
11	considered an injury. Some jurisdiction	ns 11	1	-	lown-manning"so that would be reducing the
12	wouldn't have considered that injury beca		2		number of personnel offshore, "securing the
13	they would have been off and wouldn't		3		well in the depressurizing of flow lines is
14	beenbut we count them that way.	. 14	4	ŗ	performed due to the threat of the physical
15	"Occupational Illnesses, Medical Treatme	nt and 15	5	e	environmental condition."
16	First Aids," so we're distinguishing between	een 16	6 I	ROIL, Ç	).C.:
17	the two. "First Aid" is a relatively	17	7	Q. V	When you use the expression, "the relevant
18	straightforward piece, splinters, minor	18	8	ł	board," I take it, that that word, "relevant,"
19	treatment, and then anything that require	es 19	9	i	s put in front of "the board" because you're
20	further treatment that's less than a lost tim	ie 20	0	C	lealing both Nova Scotia and Newfoundland and
21	injury would be considered a medical trea	tment 21	1	Ι	Labrador?
22	injury.	22	21	MR. PI	KE:
23	ROIL, Q.C.:	23	3	Q. [	That's correct, yes. Because it's a joint
24	Q. And again to bring our focus back to	) 24	4	Ę	guideline, it has to make reference to both
25	helicopter transportation, an injury happen	ning 25	5	ł	boards, so in this case if it's in the
		Page 38			Page 40
1	from the time that the worker checks in to a	1	1	1	Newfoundland area it would be the Newfoundland
2	time that the worker gets back at the end of		2	t	board you would be reporting to.
3	his 21-day rotation -		3 I	ROIL, Q	.C.:
4	MR. PIKE:	4	4	Q. I	f an incident happens in the Newfoundland
5	Q. Would be counted.	4	5	C	offshore as was defined by Mr. Andrews, it is
6	ROIL, Q.C.:		6	r	equired to be reported to the Newfoundland
7	Q. That would be counted. That would be expected	ed 7	7	ł	ooardor the Newfoundland -
8	to be reported.	8	8 1	MR. PIK	E:
9	MR. PIKE:	9	9	Q. 1	Yes. If the incident occurred in the Nova
10	Q. An injury that occurs anywhere in that	10	0	S	Scotia offshore, it would be reported to the
11	transit, either getting onto the helicopter	11	1	1	Nova Scotia Offshore Petroleum Board.
12	getting off the helicopter or on the	12	2 I	ROIL, Q	.C.:
13	helicopter, would be recorded. A reference to	13	3	Q. I	Right.
14	how we define the Medevacs, the fire and	14	4 1	MR. PIK	
15	explosion piece, collisions, well control, or	15	5	Q. "	'Security," we'll talk about a little bit
16	loss of well control, the hydrocarbon release,	16	6		ater. "Major Damage and Impairment,
17	a fairly extensive definition around	17			mpairment of critical equipment, failure to
18	hydrocarbon releases. A spill would be more				un successful tests of safety system of
19	of an environmental incident.	19			reduction installation or any component of the
	ROIL, Q.C.:	20			afety systems, impairment of firefighting or
21	Q. Yes.	21			ifesaving equipment failure, low-bearing
	MR. PIKE:	22		-	barts of containers, lifting devices, elevator
23	Q. "Unauthorized Discharge," again an	23			and devices, or loose lifting gear." "Near
24	environmental incident. I'll stop for a	24			Misses," we've provided some definition around
25	moment on "Adverse Environmental Conditio	ns." 25	5	t	he near misses. Sometimes near misses can

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1 tell us a lot as well.	1	worker representative, it is our expectation
2 ROIL, Q.C.:	2	that the worker representative be part of that
3 Q. The expression "near miss" is one that i	s 3	and would sign off on any incident report that
4 often used in the aviation context. Does i		we receive. If we don't see that the worker
5 only have an aviation context here?	5	representative has been privy to that one, we
6 MR. PIKE:	6	would send the report back as being
7 A. No, it would not be the same definition a	as 7	incomplete.
8 used in the aviation context, although the	re 8 I	ROIL, Q.C.:
9 may be some similarities and we would	it 9	Q. With respect to incident reporting and
10 could capture aviation pieces if there wa	ıs 10	excluding the events of March 12th, 2009, was
11 something there or some of them, but not	all 11	the Board aware of any pattern or significant
12 of them. We did take a look at, I believe	e 12	injuries or near misses or anything else with
13 Transport Canada, we became aware only	y this 13	respect to helicopter transportation over the
14 year that Transport Canada has a database	e of 14	last number of years I don't mean to confine
15 all such incidents. When we did a compari	ison, 15	it to just now or this particular airframe,
16 we have some of those incidents, but we d	lo not 16	but in the totality of the Board's experience
17 have all of them. Some of them would qu	alify 17	with helicopter transportation.
18 for requiring for reporting under Transpo	ort 18 M	MR. PIKE:
19 Canada's rules, but they would not be requ		A. I'll just take a moment to refer to some notes
20 to report it under our rules. And that just		that I have. We have had some notifications
21 goes on further to talk about what's in the		on incidents. We did not in any depth follow
22 reports themselves. So a fairly extensive		them up, they would have fitted more squarely
23 list and better definition in this report on	23	within the purview of Transport Canada
24 what needs to be required to be reported.	24	Aviation and we would have relied on their
25 ROIL, Q.C.:	25	follow up for some of those incidents. There
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1 Q. Okay, if you want to go back to your slide		have, over the years, been issues with the
2 think the Registrar can probably bring the		airframes, either problems with the engines or
3 back up for you if you are finished with th	he 3	some issues around warning lights that would
4 review of that document.	4	have grounded the helicopter in the offshore,
5 MR. PIKE:	5	we've seen some of those. But again, we would
6 A. Yes.	6	have relied on Transport Canada Aviation to
7 ROIL, Q.C.:	7	follow up on those particular incidents.
8 Q. We'll let her do that and -		ROIL, Q.C.:
9 MR. PIKE:	9	Q. Okay, I think you're up to about slide 25, I
10 A. It's our opinion that the reporting is	10	don't think they're numbered on the back or on
11 generally good from all operators. Howe		the bottom, but you can bring us up to the
12 there is a learning curve. When operator		26th, I guess, is the next one.
13 start in our area, initially they tend to		MR. PIKE:
14 focus only on the occupational health an 15 safety regulations and for reporting	nd 14	A. Compliance and enforcement. One of the principle compliance tools used by a safety
<ul><li>safety regulations and for reporting</li><li>requirements there. This does not include the</li></ul>		officer is the safety audit and inspection or
requirements there. This does not include requirement for reporting significant even		inspection. This process has evolved over the
18 or the near misses which occur in some of		years. In the late 80s, the Board contracted
19 other regulations. This requirement is		the International Loss Control Institute to
20 captured under the other regulations, as 1		develop a safety auditing tool. The auditing
21 noted. The key to such reporting and poss		tool was found to have some limitations but
investigation is to find the root cause. This		over time, we have adapted it to better align
is particularly important in cases that we s		with our regulatory requirements. Until
24 where there are potential trends or repea		recently, a safety officer would conduct a
25 problems. I think I noted in there that the		focused audit where we would take one of the

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1	safety assessment elements and audit agai	nst	1	the	failure of the Board to make a public
2	it. We would, over time, audit all safety		2	stan	d prior to the resumption of helicopter
3	assessment elements; however, we began t	o find	3	flig	hts. Workers were very much concerned
4	it more difficult to finish a complete cycle.		4	with	n offshore flights and that's obvious from
5	After the independent review team report,	we	5	that	particular concern.
6	began conducting systems audits with t	wo	6 RO	DIL, Q.C.	:
7	safety officers as a team and then safety		7 (	Q. Tha	t's the resumption of helicopter flights
8	inspections in between audits. The audi	t s	8	foll	owing the March 12th incident.
9	would look at the system as a whole or the	ne g	9 MR	R. PIKE:	
10	safety plans, so instead of taking a single	10	0 4	A. Inci	dent, yes. Defined security audits have
11	element within the safety plan, we would l	ook 1	1	beer	n a feature of our work post 911, so since
12	at the overall plan. And the inspections	12	2	Sep	tember 11, 2001 and those incidents we'll
13	would follow up on corrective actions. We	e'll 13	3	talk	a little bit about those in a moment. As
14	talk a little bit more on how we put those	2 14	4	prev	viously discussed, the process starts with
15	together in a few moments. Another of t	he 1	5	the	pre-authorization safety audit. We audit
16	recommendations from the internal review	v or 10	6	or	inspect the operator after the
17	the independent review team was a close	er 1	7	autł	norization is issued approximately every
18	corroboration with our Environmental Aff	airs 18	8	thre	e months; however with geophysical or one
19	Department.	19	9	of th	he seismic authorizations, we would likely
20 1	ROIL, Q.C.:	20	0	aud	it or inspect that as often. We may but
21	Q. The independent review team that you tak	ked 2	1	rare	ly do look at it once the authorization is
22	about here on a couple of occasions, that'	s 22	2	issu	ed, unless we have reason to do so. We
23	the same one that you were speaking of	of 23	3	con	tinue to monitor the operator's compliance
24	earlier, the norwegian peer review?	24	4	with	n the legislation and the safety plan.
25 1	MR. PIKE:	25	5	Son	nething to note here is that our job is not
		Page 46			Page 48
1	A. Yes, the independent review team from No.	<u> </u>	1	han	ds off. We are as dependent on the safety
2	Over the last year and a half we have been	•	2		he installations as those who work on them
3	conducting integrated audits using a team		3		ry day. We travel to the offshore using
4	consisting of two environmental complia		4		helicopter transport, so in fact every
5	officers and two safety officers. This has		5		e we go offshore, there is a review of
6	resulted in a more comprehensive audit, t		6		copter operations and we'll talk a little
7	process is still evolving and still being		7		more about that. There are two types of
8	worked. We continue with regular safe		8		-conformances that we use in our safety
9	inspections to follow up between audits. T	•	~ 9		it reports and inspections. An observation
10	department established a formal process f				statement of fact, that may be as simple
11	all health and safety regulated complaints				f we're looking at the permit to work
12	2006. Prior to 2006, while there was no				em or the control of work. We would tend
13	formal process, the disposition of complain			-	book at what permits are out, it could be
14	was documented in internal memos. Since				simple as the permit has not been
15	there have been 30 complaints formal				ropriately filled out. They have a permit,
16	registered with the department, four of tho	-			the permit was not filled out
17	complaints were related to helicopter	1			ropriately, or if we come across a worker
18	operations; two related to concerns that				vity that does not have a permit, that
19	operators were putting undue pressure of				Ild be a more significant concern, or if we
20	Cougar Helicopters to conduct flights. O				that there was multiple work permits that
21	investigations, while that may have been				in had individual problems, that would lead
22	concern of the workers, we saw no evidence			-	potentially to a finding.
23	that, that Cougar was succumbing to an			DIL, Q.C.	
24	pressure. One related to the sizing of fligh	-			an observation is simply an observation of
25	suits and an interesting one that related to	2		fact	
Ē	sais and an interesting the that related to	2.	-	iuot	

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1 MR. PIKE:		1	again	st helicopter operations in some form, so
2 A. Statement of fact, we went out, we looked a	nt a	2	they v	would be the ones that I've just sort of
3 work permit, it was not completed correctly.	<i>.</i>	3	identi	ified, either an issue, a heliport, an
4 ROIL, Q.C.:		4	issue	on the helideck -
5 Q. Can you bring an example of an observation	ion	5 R	OIL, Q.C.:	
6 that might relate to the helicopter transport		6	Q. Or ev	en an in-flight issue.
7 type of scenario just so we can focus on what		7 N	R. PIKE:	
8 might be an observation that the Board coul	ld	8		in-flight issue. There were several
9 make with respect to helicopter		9		1the original systems had what they
10 transportation.	1	10		a flight entertainment system which
11 MR. PIKE:		11	-	ded music for the workers as they
12 A. We arrive at the heliport and they are		12		lled offshore. We were finding that they
13 dispensing the flight suits. If we were to		13		somewhat problematic in that some
14 see that somebody was receiving a suit that		14		sets weren't working on occasion, so that
15 did not, to us, look like it was fitting, that		15		ll been changed out now and we now have a
16 would be an observation.		16	•	m in the cabin so that the instructions
17 ROIL, Q.C.:		17		the pilot can be clearly heard by all
18 Q. Okay. 19 MR. PIKE:		18 10 D	work	ers.
			OIL, Q.C.:	broadcast into the cabin system is it?
<ul> <li>A. If they didn't run the pre-safety video, that</li> <li>would be an observation. If during the flight</li> </ul>		20 21 N	Q. It sa R. PIKE:	broadcast into the cabin system, is it?
		21 IV 22	A. Yes.	
22 we saw that individuals were not following to 23 instructions of the pilots, that would be an			A. 1 es. OIL, Q.C.:	
24 observation. If we landed on the helideck an		23 K 24		posed to a headphone system?
<ul> <li>noted that the firefighting team wasn't there</li> </ul>			R. PIKE:	posed to a headphone system?
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1 that would be an observation. So if there is	•	1	A. Yes.	C C
2 anything we see as we go through that proce		2		ction, but the broadcast system I
3 that is not as per the procedures, we would		3	-	stand is not being used. The original
4 note that as an observation. Some of those		4		was to provide entertainment for the
5 would constitute what we refer to as a		5	work	ers in transit, with the idea that the
6 significant implication for safety and that		6		incements could be made, but it was a
7 could generate a finding. So the finding,		7	system	m that did have some problems and some of
8 which is the other non-conformance we use,	, is	8	-	observations would have been related to
9 a conclusion substantiated by one or more	e	9	that.	In that time, there have been a total
10 observations and as I indicated, that has	1	10	of 57	findings which remember is a conclusion
11 significant implications for safety. Since	1	11	subst	antiated by one or more observations.
12 1997 -	1	12	There	e have been zero findings against
13 ROIL, Q.C.:	1	13	helico	opter operations.
14 Q. Okay, so 1997 is the beginning of your	1	14 R	OIL, Q.C.:	
15 measurement period here, is it?	1	15		ne 57 findings out of the 4000
16 MR. PIKE:		16		vations -
17 A. Yes, essentially that was when the Hibernia	ia 🔤	17 N	R. PIKE:	
18 platform moved offshore and started		18		no, out of the 261 audits or inspections,
19 operations.		19		ould have generated 57 findings.
20 ROIL, Q.C.:			OIL, Q.C.:	
21 Q. Okay.		21	Q. Yes.	
22 MR. PIKE:			R. PIKE:	
A. There have been 261 audits or inspections		23		of those have been against helicopter
24 generating approximately 4000 observation		24 25 D		tions.
25 Of those, 178 observations have been raise	a 2	25 R	OIL, Q.C.:	

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1 Q. Okay.	1	Q.	So upon arrival on an installation, the safety
2 MR. PIKE:	2		officer conducts an opening meeting to outline
3 A. Prior to any audit or inspection, a safet	y 3		the purpose of the audit or inspection and
4 officer will review outstanding observati	ions 4		what areas they may want to inspect. So if
5 or findings from the previous audit o			we're doing a follow up on an observation, we
6 inspection. The safety officer would al			may want to go to a particular area to see
7 review incident reports from any incide			what has been done with regard to that
8 that have occurred since the last audit of			observation or finding. A worker
9 inspection. The minutes of the joint	. 9		representative from the Joint Occupational
10 occupational health and safety committe	e are 10		Health & Safety Committee is part of that
11 checked for any outstanding items or rect	urring  11		meeting and an offer is made for a worker
12 issues. And any open complaints would	also be 12		representative to accompany the safety officer
13 reviewed. That would be the same for be	oth an 13		on the audit or inspection.
14 audit and inspection. If we were doing	an 14		Also during their stay on the
15 audit in addition to that, we would pu			installation, the safety officer meets in
16 together, review the commitments in the			private with the worker representative of the
17 plan and more recently with the integra	ited 17		Joint Occupational Health & Safety Committee
audits, it would be a more comprehen			to afford them an opportunity to raise any
19 systems audit. So there would also bet	hey 19		concerns that they may have. A closing
20 would review safety plan in preparation	to 20		meeting would be held prior to departure to
21 audit against it.	21		review any observations and concerns noted
22 ROIL, Q.C.:	22		during the audit or inspection. A reportand
23 Q. To the uninitiated, those of us that don?	t 23		this is a bit of a change, in our earlier
24 work in this world every day, as you o	lo, 24		versions we would have left a report with, on
25 what's the difference, the essential	25		board the installation before we left. To be
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1 difference between an inspection and an	-		quite honest, I believe it put too much
2 MR. PIKE:	2		pressure on our safety officers to be able to
3 A. The audit, we would be going out princi	pally 3		produce that report while they were still on
4 to review compliance to the safety plan, s			board. So our practice now is that that
5 would be checking, verifying it. Th	e 5		report is prepared once you are returned to
6 inspection we were going offshore and it	would 6		shore and within five days. It also allows
7 be a follow up to a previous audit. If the			usit's a much better process and allows us
8 are any outstanding observations and aga			to do any follow up on shore, so if there's
9 would do someit would generally be a f	follow 9		something that we weren't quite clear on
10 up and it would not necessarily be lookin	g at 10		offshore, we can do some follow up onshore
11 or looking for specific compliance I gues	s is 11		with that piece as well. So the final report
12 the easiest way to describe that.	12		of the audit or inspection is provided to the
13 ROIL, Q.C.:	13		operator and the Joint Occupational Safety
14 Q. It's a less formal procedure.	14		Committee for that installation. We have, as
15 MR. PIKE:	15		noted, an audit summary database that tracks
16 A. It is a less formal procedure, yes.	16		the status of each of the non-conformance
17 ROIL, Q.C.:	17		items. It also allows us if we were seeing
18 Q. Okay, but an inspection, I take it, can bri	ng 18		something in this audit that maybe had been
19 up concerns for you, just as easily as a	n 19		closed in previous audits, it allows us also
20 audit can bring up concerns?	20		to track those kind of items.
21 MR. PIKE:	21	ROIL,	Q.C.:
22 A. Yes, there would potentially be a general	walk 22	Q.	By closed, you mean?
around to see if there are any items of	f 23	MR. P	IKE:
24 concern.	24	А.	If two years ago we were out and we saw
25 ROIL, Q.C.:	25		particular non-conformance, raised it as an

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1 item and it got closed -	1		facilities, these facilities are part of their
2 ROIL, Q.C.:	2		work environment. They are required to spend
3 Q. Closed meaning dealt with?	3		days and nights offshore as part of their job.
4 MR. PIKE:	4		So every offshore audit and inspection
5 A. Dealt with.	5		includes a trip to the heliport, the same as a
6 ROIL, Q.C.:	6		worker who is starting rotation. It also
7 Q. Yes.	7		means landing on the helicopter deck of the
8 MR. PIKE:	8		installation and when we leave, taking off
9 A. So it was no longer carried as an oper	n 9		from the installation at the completion of the
10 observation, that database does allow us t			inspection or audit and returning through the
back and say yes, we saw that several yes	-		heliport. All of these provide the
12 ago, what's going on, is there a system			opportunity to observe, assess and review
13 problem. Why is this continuing to show			helicopter operations. While helicopter
14 So it allows us to be able to do that form	of 14		operations may not be the focus of any of
15 analysis.	15		those audits, we would note any non-
16 ROIL, Q.C.:	16		conformances during those visits.
17 Q. You can go back and look at things befo	ore, 17	ROIL,	Q.C.:
things that are now and if there is a patter		Q.	So if you're going out to audit a particular
19 developing, you can see that pattern -	19		aspect of an installation, the fact that you
20 MR. PIKE:	20		travel by helicopter is not, you're not off
21 A. Arising, yes. We could move on to secu	urity 21		duty at that time, I take it.
22 audits. Since 911, protection of Canada	a's 22	MR. PI	KE:
23 energy infrastructure has become a prior	ity. 23	A.	No, we would see ifthe focus of that audit
24 Many of the elements respecting securit	y of 24		was on the installation, but as we went
25 offshore installations had been subject t	to 25		through the heliport or landed on the
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1 some scrutiny before then, but the new pro	ogram 1		helideck, we noted a non-conformance, that
2 has placed them under greater focus ar	nd 2		would be noted in that report.
3 priority. Security would have been consid	lered 3	ROIL,	Q.C.:
4 previously under, as just another one of th	ne 4	Q.	Okay.
5 risks that needed to be managed in the	e 5	MR. PI	KE:
6 offshore. The security audit looks at the	6	A.	And indeed a number of those that we had
7 operator's oversight of their contractors. It	t 7		raised previously would not have been the
8 is the operator's contractors that hold the	8		focus of the audit.
9 key to security of the offshore installations	s. 9	ROIL,	Q.C.:
10 There is no other way to access the offsho	ore 10	Q.	Yes.
11 installations except through the heliport an	nd 11	MR. PI	KE:
12 the supply base, which are the gateways to	o the 12	A.	So in closing, all operators require an
13 offshore installations. These gateways an	re 13		approved safety plan before any authorization
14 operated by the operator's contractors ar	nd 14		is issued. Safety plans are systematically
15 form the key to offshore security. As part of	of 15		assessed before the authorization is issued.
16 our security audit of operators, we have o			Adherence to the safety plan is systematically
17 several occasions to access the heliport	t 17		verified through the activity. Deviations
18 security. While not perfect, Cougar exhibit			from an approved safety plan are required to
19 very good performance and with a very ad			be corrected. If not, the authorization can
20 desire to improve. So it demonstrated a ve	-		be revoked or the operator can be prosecuted.
21 positive culture, in our view, when we di	id 21		Mr. Commissioner, I have tried to provide
22 audit those particular facilities.	22		insight of how we do our job. I trust it has
23 As I mentioned earlier, while our safety			been a rational approach to a subject that has
24 officers and environmental compliance off	ficers 24		a great impact on people, because while we
25 are not stationed fulltime on offshore	25		talk about plans, authorizations, processes

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1	and statistics, our job is about people. For	-	1	s	afety culture, but it would be something that	C
2	those lost on that fateful day in March, we		2		ve would look at promoting within the	
3	will ever remember them in our hearts, in o		3		perator, but it is the operators to develop	
4	prayers. Mr. Commissioner, thank you for		4		uch a safety culture. Culture cannot be	
5	attention and I look forward to receiving th	-	5		mposed upon a workplace. We can certainly	
6	results of your work.		6		ncourage it, but we would not be able to	
7 RO	IL, Q.C.:		7		mpose it as any culture can be imposed upon	
	Q. Before we close entirely, Mr. Pike, you i	n	8		eople, so it's something we're looking at.	
9	part of your explanation of things today,		9	-	ndeed as we go forward, we're also looking at	
10	referred to culture and you would have be	een	10	b	etter ways to measure safety. Traditionally	
11	here on the opening day when the Commis		11		afety regulators measured more in failure	
12	referred to safety culture. Can you give us		12		han they are in success, so it's more of what	
13	any insights or thoughts on the ability of th		13		hey haven't done after an incident has	
14	C-NLOPB through these processes to eith	er	14	0	ccurred, in as much as what could be done	
15	monitor, observe or create a safety culture	e	15	b	eforehand or measured beforehand. In	
16	with respect to work in the offshore and	1	16	r	eviewing some of those things, we note that	
17	particularly, I suppose, work with respect t		17		Norway uses an approach called risk trends	
18	the transportation of individuals by		18	a	nalysis, so we are engaged currently and we	
19	helicopter?		19	a	re looking at whether that will work in	
20 MR	. PIKE:		20	Ν	Newfoundland and we've engaged Safety Net, 1	the
21	A. First and foremost it would be the operate	or	21	с	entre for occupational health and safety	
22	that would need to develop the culture. V	Ve	22	r	esearch at Memorial University to assist us	
23	have looked, there is ongoing research, it is	s	23	i	n looking at ways of developing better tools	
24	a newer topic within the safety world. If yo	ou	24	te	o measure the risk or the reduction in risk	
25	look at the evolution of safety, it would ha	ve	25	a	s the risk trends would be in the offshore.	
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1	started with safety engineering, focus on the	e	1		So we're looking at various methods, inclu	uding
2	equipment and that brought us a certain		2		safety culture. I'm not sure if that answers	-
3	distance in providing a safer work		3		your question.	
4	environment. In the 50's, there is the start		4 R	OIL,	Q.C.:	
5	to look at the safety management systems,	a	5	Q.	Well, I think if that is the answer that you	
6	recognition that the management systems a	lso	6		wish to give, that's what I wanted to give	you
7	played a role and now, more recently, I thin	ık	7		an opportunity to comment on it because	the
8	safety culture was first mentioned when th	ie	8		Commissioner had indicated that it was	of
9	international atomic regulatory authorities		9		interest to him and that he was, he mad	e
10	did the investigation of Chernobyl, that's		10		observations about what he learned at the	ie
11	essentially the first time safety culture was		11		Helicopter Safety Conference in Montreal	and I
12	actually mentioned in a report. So it's a		12		thought that I would give you the opportur	nity
13	fairly recent piece. The legislation is not		13		to comment upon it as well.	
14	sort of clear on that particularly in Canada,		14 M	IR. PI	KE:	
15	other countries do have some legislation		15	А.	There was extensive research done on sat	fety
16	dealing with safety culture or the promotion		16		culture in Aberdeen and indeed a research	
17	of safety culture. There is ongoing research		17		St. Mary's did original doctorial work in	
18	in Canada on safety culture. We have avail		18		Aberdeen, so he brings some of that exper	
19	of those folks and have looked at the world		19		with him. So it's been very informative a	
20	that they have done. St. Mary's University		20		it was something that was looked at ver	•
21	there is the CN Centre for Occupational Hea		21		closely after the Piper Alpha disaster in	
22	and Safety has a researcher that has done a		22		1987.	
23	lot of work on safety culture. We have, or		23 R			
24	several occasions, engaged him to have a		24		Well allow you to guess at that date.	
25	discussion as to how you can look at measu	ring	25 M	IR. PI	KE:	

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1	A.	No, the Piper Alpha would have been '88	,	1	try to do t	hat where necessary.
2		actually, to be quite honest.		2	OMMISSIONER:	
3	ROIL,	Q.C.:		3	Q. Okay, the	n thank you, we'll take the break and
4	Q.	Okay, Mr. Commissioner, that is the close of	of	4	it will pro	bably be fifteen minutes anyway
5		the direct evidence and information from the	e	5	before you	u can re-configure.
6		C-NLOPB. Before we complete, though, I wa	ant	6	OIL, Q.C.:	
7		to make a number of comments about it. W	Ve	7	Q. Yes.	
8		made a strategic decision a long time ago to		8	OMMISSIONER:	
9		keep this presentation at a very high level		9	Q. Thank yo	u then, Mr. Pike.
10		and to not deal, except in a number of small	1	0	(RE	CESS)
11		examples that were given along the way, no	ot 1	11	OIL, Q.C.:	
12		deal with actual audits, actual inspections,	1	12	Q. Thank you	u, Commissioner. We do have now both
13		actual results with respect to any of the	1	13	Mr. Pike a	and Mr. Andrews available and we had,
14		operators or the helicopter provider. There	1	14	as we had	l indicated earlier, developed the
15		will be an opportunity to do that if it is	1	15	protocol,	and so the first opportunity to ask
16		appropriate and necessary and so, in doing	1	16	questions	is extended to the legal counsel for
17		this, I am saying to you and to those present	1	17	the C-NLC	OPB. We have the others after that.
18		and to the public, that there will be other	1	8	I simply r	emind the parties that they do have
19		opportunity or opportunities as necessary for	: 1	19	to come u	p here to this position and ask their
20		Mr. Pike or others from the C-NLOPB to con	ne 2	20	questions	from this location.
21		back and deal with any items that come up	<b>b</b> 2	21	IS. CROSBIE:	
22		along the way, but that at this point in time,	2	22	Q. I have no	questions at this time.
23		rather than get down with looking at an	2	23	OIL, Q.C.:	
24		individual inspection with the company that	is 2	24	Q. Okay, I g	guess you can say you have no
25		being inspected not having an opportunity to	D 2	25	questions	from the positions back there and
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1		talk about what they do until many months from		1	indicate that	at for the record.
2		now, perhaps, it was felt more fair to take it		2	EGISTRAR:	
3		at a high level now and come into the details		3	Q. Excuse me	. Would counsel state their name,
4		a little later if that is felt necessary for		4	please, who	ether they have questions or not,
5		the purposes of our Inquiry. The other thing		5	for the reco	ord?
6		I have to say is that apparently before weit		6	OIL, Q.C.:	
7		is break time anyway, but before we resume, we		7	Q. Okay. The	e first one was counsel for the C-
8		have to re-configure the camera to allow it to		8	NLOPB. Th	hat was Amy Crosbie, and she
9		pick up both Mr. Pike and Mr. Andrews who will	1	9	indicated th	hat she had no questions. Next is
10		both be available to be the person who best	1	0	counsel for	Transport Canada.
11		answers the various questions that may come	1	1	R. JOHN ANDREWS	S AND MR. HOWARD PIKE, CROSS-EXAMINATION
12		from the individual parties.	1	12	Y MR. JONATHAN	TARLTON
13	COMM	IISSIONER:	1	13	R. TARLTON:	
14	Q.	Yes, as a matter of interest, have you	1	14	Q. Good mor	ning, Commissioner. My name is
15		arranged with counsel for the parties for any	1	15	Jonathan T	arlton. I do have a couple of very
16		order of questioning?	1	16	brief quest	ions. Yes, thank you again. I
17	ROIL,	Q.C.:	1	17	understand	I should reintroduce myself for the
18	Q.	We have developed a protocol and, you know,	1	8	purposes of	f the general public, Commissioner.
19		indicated to them this was Inquiry counsel's	1	19	My name i	s Jonathan Tarlton. I am a lawyer
20		preference and I think that would be the	2	20	with the	Department of Justice and
21		protocol we would follow. From time to time	2	21	representin	g Transport Canada in this matter.
22		if a party has to leave a room early or needs	2	22		ning, gentlemen. Thank you very much
23		to, for some reason or another, get in front		23		stimony over the past couple of
24		of somebody else, again, we're trying to be	2	24	days. I jus	t have a couple of brief questions
		- • •				

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1	testimony earlier this morning. Mr. Pike, you		1	1	the safety plans and the need to have them
2	indicated in response to some questions from		2	;	approved before authorizations go forward. Is
3	Mr. Roil that the Board became aware of som	ie	3	1	that correct?
4	notifications as a result of some incidents		4	MR. PI	KE:
5	involving helicopters. Do you recall saying		5	Α. ΄	That's correct.
6	that?		6	MR. TA	ARLTON:
7 MR. I	PIKE:		7	<b>Q</b> . ]	Is it part of the approval of the plan to
8 A.	With reference to the incident reporting, yes.		8	1	require an operator to notify the Board of any
9 MR. 7	TARLTON:		9	i	incident that theyinformation of any
10 Q.	Yes, and can I just by way of clarify, when		10	i	incident they receive, whether it comes
11	you use the word "incidents" are you using the	e	11	1	through the Board's processes or it comes
12	word "incidents" as understood in Exhibit8		12	1	through information received by other sources?
13	and specifically the definition in Section 6		13	MR. PI	KE:
14	and the further clarification in Section 8.4?		14	Α.	Yes.
15 MR. I	PIKE:		15	MR. TA	ARLTON:
16 A.	Could you repeat that? I'm not sure. You're		16		Okay. That would include, for example, the
17	referring to?		17	1	helicopter operator with which an oil operator
18 MR. 7	TARLTON:		18	,	would secure to provide transportation for
19 Q.	Well, you referred this morning as well to the		19	,	workers to and from St. John's and the oil
20	guidelines and Exhibit 48, the guidelines for		20	1	rigs, correct?
21	the reporting and investigation of incidents.	1	21	MR. PI	KE:
22 MR. I	PIKE:		22	Α.	Yes.
23 A.	Yes, I did.	1	23	MR. TA	ARLTON:
24 MR. 7	TARLTON:	1	24	-	And that would alsocould include information
25 Q.	And you explained that in some detail, and I	,	25	1	that the oil operator received from their
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1	understand in both Section 6 and Section 8.4		1	1	helicopter operator from other entities or
2	of those guidelines, there's a specific		2	1	regulators, correct?
3	definition of incident.		3 1	MR. PI	KE:
4 MR. I	PIKE:		4	Α.	Yes.
5 A.	Yes, that's correct.		5 1	MR. TA	ARLTON:
6 MR. 7	TARLTON:		6	Q. (	Okay, thank you. Those are all my questions.
7 Q.	And I just want to clarify when you referred		7	,	Thank you, Mr. Commissioner.
8	in response to Mr. Roil's questions about		8 ]	ROIL, (	
9	receiving notification of some incidents from		9		Next in the order is the counsel for the
10	other parties, you used that, you used the		10		Canadian Association of Petroleum Producers.
11	word "incident" as well.		11	(	Counsel is not here, but Mr. Paul Barnes is
12 MR. I			12	]	here.
13 A.	The reporting we would have received woul				ARNES:
14	have been from the operator, and they may ha		14		That's correct, and I'm the manager of
15	been related to helicopter operations. So the		15		Atlantic Canada for CAPP. I'm actually going
16	incident we would have had reported would have		16		to be the witness for CAPP, and we have no
17	been from the operator. We would not have		17		questions for C-NLOPB.
18	received an incident report from other			ROIL, (	
19	parties.		19		Mr. Barnes indicates that he's the manager of
	TARLTON:		20		CAPP and that there will be no questions from
	Thank you for that clarification, because I		21		CAPP of these witnesses. Next we have the
22	think you've helped answer the questions that		22		three oil operator companies, and we've
23	I wanted to get at next, which are in regards		23		allowed them to make the decision as to which
24	to the safety plan. Both you and Mr. Andrews		24		one of those would lead on any particular
25	in your testimony, mentioned the importance of	of [2	25	i	item, so I would call upon one of them to come

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1	forward. Ms. Cecily Strickland is legal	1	I	present today. Next would be representatives
2	counsel for Hibernia Management and	2	(	of Helly Hansen and I don't believe that there
3	Development Corporation.	3	i	s any representative of Helly Hansen who is
4	STRICKLAND, Q.C.:	4		available today. The next would be legal
5	Q. Good morning, Commissioner Wells. We have no	5		counsel for Memorial University, as operator
6	questions at this time, but will reserve any	6		of the Offshore Survival Centre.
7	questions that we do have to the point when	7	MS. HOI	LLETT:
8	the C-NLOPB puts forward substantive evidence	8	Q. 7	Thank you, Mr. Commissioner. We have no
9	with respect to the audits and assessments	9		questions at this time.
10	that they have done.	10	ROIL, Q	-
11	COMMISSIONER:	11		Commissioner, Karen Hollett, legal counsel for
12	Q. Okay, thank you.	12		he University indicates that they have no
	MACDONALD, Q.C.:	13		questions at this time for these witnesses.
14	Q. Commissioner, Alexander MacDonald for Husky.	14		Counsel for the Government of Newfoundland and
15	We will not be asking questions and we make	15		Labrador, Mr. Rolf Harris is here.
16	the same observations as Ms. Strickland just			TCHARD:
17	made.	17		Good morning.
	COMMISSIONER:		ROIL, Q	-
19	Q. Okay, thank you.	19		Rolf Harris, I'm sorry. Rolf Pritchard. My
	ROIL, Q.C.:	$\frac{1}{20}$		First mistake, but not the last time I'll do
20	Q. For the record, Sandy MacDonald, legal counsel	20		something like that.
21 22	for Husky has indicated that they do not have			TCHARD:
22	any questions at this time and reserve the	22		My comments usually aren't as comedic. Mr.
		23		Commissioner, thank you very much. I don't
24 25	same rights as were reserved by counsel for HMDC.	24		have any questions on behalf of the Province
25		-	1	
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	MR. MAHONEY:			of Newfoundland and Labrador. Gentlemen,
2	Q. Good morning, Mr. Commissioner. Denis Mahoney	2		hank you for your evidence.
3	on behalf of Suncor Energy and we have no	3		SSIONER:
4	questions for these witnesses at this time.	4		Okay, thank you.
5	Thank you.		ROIL, Q	
	COMMISSIONER:	6	-	Mr. Pritchard indicates that he has no
7	Q. Thank you.	7		questions on behalf of the Government of
	ROIL, Q.C.:	8		Newfoundland. Mr. Jack Harris has limited
9	Q. Denis Mahoney, legal counsel for Suncor	9		standing and could be present, but he is not
10	Energy, indicates that they have no questions	10	-	present today. Counsel for CEP.
11	at this time as well. Next would be Norman			LAKRISHNAN:
12	Whalen, legal counsel for Cougar Helicopters.	12		Good morning, Mr. Commissioner. Raman
13	WHALEN, Q.C.:	13		Balakrishnan appearing on behalf of CEP. We
14	Q. Good morning, Mr. Commissioner. I have no	14		nave a few questions. I don't know, do you
15	questions at this time, but of course, reserve	15	r	need me to spell my name?
16	the right to questioning on the evidence that	16		SSIONER:
17	may come forward after Christmas from the C-	17	Q. I	I'm sorry?
18	NLOPB.	18	MR. BAI	LAKRISHNAN:
19	COMMISSIONER:	19	Q. I	Do you need me to spell my name?
20	Q. Thank you.	20	COMMI	SSIONER:
21	ROIL, Q.C.:	21	Q. I	Probably, yes, to be on the safe side.
22	Q. Mr. Whalen also indicates that he has no	22	MR. BAI	LAKRISHNAN:
	questions at this time. Next is the	23	Q. (	Okay. It's R-A-M-A-N B-A-L-A-K-R-I-S-H-N-A-N.
23			-	
23 24	opportunity for legal counsel for Sikorsky	24		Hopefully everybody got that.

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1 Q. Okay, thank you.	1 (	2. Now with the draft regulations, which I		
2 MR. JOHN ANDREWS AND MR. HOWARD PIKE, CROSS-EXAMINATIO	N 2	understand from your testimony yesterday,		
3 BY MR. RAMAN BALAKRISHNAN	3	that's incorporated inthat's actually a		
4 MR. BALAKRISHNAN:	4	condition into the authorization? Is that		
5 Q. Most of my questions are going to beI think	5	correct?		
6 Mr. Pike is going to be in the better position	6 MR	PIKE:		
7 to answer these. Mr. Pike, the audits and	7 A	A. Yes.		
8 inspections that occur, I think you mentioned	8 MR	BALAKRISHNAN:		
9 this morning that they generally occur on a	9 (	Q. Okay. So those are expected to be followed		
10 three-month schedule basis?	10	and adhered to?		
11 MR. PIKE:	11 MR	. PIKE:		
12 A. Yes, that's correct.	12 A	A. Yes.		
13 mr. balakrishnan:	13 MR	BALAKRISHNAN:		
14 Q. Are there any spot checks? Would there be any	14 Q	2. If there are any violations of any of the		
15 reason why C-NLOPB would send somebody earlier	15	occupational health and safety draft		
16 than three months, later than three months?	16	regulations, you mentioned that an		
17 mr. pike:	17	authorization could be removed?		
18 A. That is certainly possible if an incident came	18 MR	. PIKE:		
19 to our attention that we would want to	19 A	A. Yes.		
20 investigate sooner than that or to inquire	20 MR	BALAKRISHNAN:		
into, sorry, yes, there could be a possibility	21 0	2. Or the offender could be prosecuted, I would		
22 of more frequent inspections.	22	think?		
23 WHALEN, Q.C.:	23 MR	PIKE:		
Q. The witness will have to speak up, Mr.	24 A	A. Yes.		
25 Commissioner.	25 MR	BALAKRISHNAN:		
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1 COMMISSIONER:	1 (	2. Any other penalties available? A fine, you		
2 Q. Difficulty hearing?	2	know, anything at all?		
3 UNKNOWN SPEAKER:	3 MR	PIKE:		
4 Q. Yes, it is back here.		A. No.		
5 COMMISSIONER:		BALAKRISHNAN:		
6 Q. If you could both speak probably a bit louder.	6 (	o. Okay. So it's either Court or a complete		
7 MR. BALAKRISHNAN:	7	shutdown?		
8 Q. Okay. The reason why you would need maybe		PIKE:		
9 more frequent inspections or anything like	9 A	A. Yes. We wouldwell, I think there is a		
that, if that ever popped up, would that	10	notice to comply would bethere is a		
generally run from the minutes that are being	11	progressive scale to this.		
2 provided to C-NLOPB from the committees?		BALAKRISHNAN:		
13 MR. PIKE:		o. Oh, I'm going to go to that.		
A. We've certainly had case to do that, where	14 MR			
15 there was an issue related to joint		A. It would not be a fine.		
occupational health and safety committee. We		BALAKRISHNAN:		
17 did do a focused inspection at that point,		<u>)</u> . No.		
dealing with that issues. In addition, if	18 MR			
19 there was an incident reported that we felt		A. But you would progress your way through it.		
20 required immediate follow up, we may do,	20	But once you reach the stage of more legal		
again, an inspection related to an incident.	21	proceedings, it would be removal of the		
22 So either of those could result in an	22	authorization or Court. But there is a		
inspection, other than the three-monthly	23	progression to get to that stage.		
24 schedule.		BALAKRISHNAN:		
25 MR. BALAKRISHNAN:	25 Q	2. Well, why don't we go through that? I operate		

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1 ABC Company Inc. that's running a	t drilling 1	1 finding, they're given a specific period of
2 platform and it appears that I'm in v	iolation 2	2 time to respond, indicating what action they
3 of one of the requirements under th	ne draft 3	1 8
4 occupational health and safety regs.	4	8.
5 MR. PIKE:		5 MR. BALAKRISHNAN:
6 A. If this came to light in an audit		6 Q. And what is that generally?
7 inspection, it would be raised as		7 MR. PIKE:
8 observation or a finding. We would		5
9 anticipate that that would be correct		9 MR. BALAKRISHNAN:
10 you, as an operator, were failing to 1		
and it was found that it continued, v		1 MR. PIKE:
12 then raise it to a notice to comply.	•	5 5 5 7
13 continued not to meet that part, the		5
14 be an order for compliance and	•	
15 continued not to comply with that p		
we would look at prosecution or ren		5
authorization, depending on the natu		1
violation. A significant violation, w		8 MR. BALAKRISHNAN:
19 probably look at removal of the auth		
20 first. Otherwise, we would look		
21 prosecution, prosecution taking a lo	-	5 15 1
than the removal of the authorization		2 MR. PIKE:
23 MR. BALAKRISHNAN:	. 23	*
Q. If I recall correctly, I think your test		1 2
25 yesterday, you mentioned that you		5 MR. BALAKRISHNAN:
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actually had a prosecution, if I'm re	e l	
2 correctly on that.	2	1
3 MR. PIKE:		3 MR. PIKE:
4 A. I did state that yesterday, and it wo		,
5 none related to occupational health a		5 MR. BALAKRISHNAN:
6 regulation, yes.	6	
7 MR. BALAKRISHNAN:	7	8
8 Q. Okay.	8	8 11
9 MR. PIKE:	9	
A. There have been two prosecutions	•	
issues, but they were not related t		1 MR. PIKE:
12 occupational health and safety regul		
13 MR. BALAKRISHNAN:		3 MR. BALAKRISHNAN:
14 Q. What would those have been related		
15 MR. PIKE:		5 MR. PIKE:
A. They were related to diving operation		1
17 they were against divers falsif		5
18 documentation.	18	
19 MR. BALAKRISHNAN:		9 MR. BALAKRISHNAN:
Q. So the observation thatthe observation		
the finding and then the follow up,	-	1 MR. PIKE:
have a particular time line that you g	-	
23 operator to try and meet the complia		1
24 MR. PIKE:		4 MR. BALAKRISHNAN:
A. Yes. Once we raise the observatio	n or the 25	5 Q. Other than those meetings, does the C-NLOPB

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1 oversee the joint committees in any wa	ıy, 1		In addition to that, we have a safety officer
2 ensure that maybe its guidelines and its	s 2	:	assigned to managing the minutes from joint
3 interpretation policies are being adhered to	0, 3		occupational health and safety committees. He
4 anything like that?	4		would also review the meeting, the minutes.
5 MR. PIKE:	5		So they're essentially reviewed by two people
6 A. When we are on an installation, we wo			in my office. Should they see anything
7 review the committee's operation and we			untowards in those minutes, they would raise
8 meet with the worker representatives of t			them with me. I don't personally read all the
9 committee. And again, with the minutes			minutes, but if there is an issue that they
10 would ensure that the minutes are meeting			believe needs to be raised, they will raise it
11 standards that are required for joint	11		with me.
12 occupational health and safety committee			ALAKRISHNAN:
13 Some of that is outlined in the legislation			What happens with the minutes afterwards? Are
14 Some of it would be standards as set by t			they entered into -
15 Workers Compensation Board.		MR. PI	
16 STRICKLAND, Q.C.:	16		They're filed.
17 Q. Commissioner Wells, could the witness p			ALAKRISHNAN: Are theywould they be reviewed on a periodic
<ul><li>18 either speak into the microphone or spe</li><li>19 (inaudible).</li></ul>	ak 18		basis or an annual basis or once they're
20 MR. PIKE:			filed, is that it?
21 A. My apologies.	20	MR. PI	
22 MR. BALAKRISHNAN:	21		As I indicated, each time the safety officer
23 Q. The minutes that you receive from the jo			prepares for an audit or inspection, he will
24 committee, you mentioned that they're ex			refer back to those minutes. Generally that
25 to meet every three weeks and the minutes	-		would only be the minutes between this
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1 sent to you?	1 age 00	i	inspection or audit and the last inspection or
2 MR. PIKE:	2		audit to see what was there. If there's a
3 A. That's correct.	3		continuing issue that we've seen that was
4 MR. BALAKRISHNAN:	4		raised previously, we may go back to those
5 Q. Is the C-NLOPB's position that that's a stri	ct 5		minutes and track how they've been addressed
6 timeline, every three weeks? Are yo			through the various minutes.
7 expecting minutes every three weeks?			LAKRISHNAN:
8 MR. PIKE:	8	Q. `	Would it be the same safety officer who would
9 A. The legislation makes reference to once ev	very 9	1	be doing the inspection that would also be
10 three months. Our expectation is every th	iree 10	1	reviewing the minutes initially when they come
11 weeks, essentially once during the rotation	on 11	i	in?
12 that the committee would meet. I would	tend 12	MR. PIK	Æ:
13 to say we strongly encourage that thes	e 13	Α.	Yes.
14 committees meet on a regular basis, and	l I 14	MR. BA	LAKRISHNAN:
15 can't over emphasize the strongly encoura	age. 15	Q. (	Gentlemen, thank you. Commissioner, those are
16 MR. BALAKRISHNAN:	16	;	all my questions for now, but we'd reserve the
17 Q. What happens with the minutes when the	y come 17	1	right to ask questions later on.
in? I mean, do they go to a specific safet	-		SSIONER:
19 officer? Do they go to your attention? Ju	st 19	Q.	Yes, okay, thank you.
20 run us through that.	20	ROIL, Q	
21 MR. PIKE:	21		Mr. Commissioner, the next position in the
A. The process we currently have in place at			asking of questions would be legal counsel to
23 Board is a safety officer is assigned to an		1	the families, Jamie Martin.
24 installation. So when the minutes come		MR. MA	
25 that safety officer would look at the minut	tes. 25	Q. ′	Thank you, Mr. Commissioner. We have no

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1 questions at this time, but we do reserve o	our 1	1 Pike, earlier when you were speaking today,
2 right to perhaps ask questions of the Board	d at 2	2 you discussed that your safety audits now take
3 a later date when further information, w	ve 3	3 place on a systems basis. You doyou audit
4 understand, will be coming out after Chris	stmas 4	4 systems when you do those audits?
5 when the operators are giving their evider	nce, 5	5 MR. PIKE:
6 in particular in relation to the four	6	6 A. Yes.
7 complaints that were made in relation t	to 7	7 MS. O'BRIEN:
8 offshore helicopter safety. You've outlin	ed 8	8 Q. And I understand that when you're dealing with
9 them. We would like, to the extent possib	ole, 9	9 helicopter transportation that at any time, on
10 to have substantive evidence on that point	nt. 10	0 any inspection, a safety officer may note
11 You indicated that it would probably com	e from 11	
12 the -	12	2 helicopter transport and how those systems are
13 ROIL, Q.C.:	13	3 running. Are there ever any audits that are
14 Q. I think, Mr. Martin, you're going to have	to 14	4 targeted specifically towards the helicopter
15 come up here, and I would also encourag		5 transportation systems?
16 witnesses to pretend that the person askin		6 MR. PIKE:
17 questions is not as close as they are and to	-	7 A. Yes.
18 speak to the back of the room, because I k		8 MS. O'BRIEN:
19 the problem is counsel and the witness g		9 Q. And how often would those audits take place on
20 involved in a conversation and people in	-	
21 back of the room, I understand, are havi		1 MR. PIKE:
some difficulty. We'll learn as we go.	22	2 A. I believe the last dedicated audit we did was
23 MR. MARTIN:	23	
24 Q. Thank you, Mr. Commissioner. I indicated		
25 we do reserve our right to ask questions		5 MS. O'BRIEN:
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1 the Board at a later date. We understand that	1	
2 there very well may be more substantive	2	
3 evidence being offered by the Board, possibly	3	3 MR. PIKE:
4 after Christmas, and we, in particular,	4	4 A. We started back in 1997 when Hibernia was
5 following on some of the questions that the	5	5 first starting. We would have done an audit
6 Union had, would have specific questions on	6	
7 the four incidents or complaints, I think you	7	
8 referred to them as, in relation to helicopter	8	
9 transportation. So we reserve our right at	9	9 time. In the intervening time, off the top, I
10 that particular time, upon receipt of more	10	
11 substantive evidence, which we assume will be	11	1 MS. O'BRIEN:
12 forthcoming, and we'll be given an ample	12	
13 opportunity to review it. So, at this time,		3 MR. PIKE:
14 no questions. Thank you.	14	
15 COMMISSIONER:	15	
16 Q. Okay, thank you, Mr. Martin.	16	
17 ROIL, Q.C.:	17	
18 Q. Next would be legal counsel for the Estates of	18	8 MS. O'BRIEN:
19 the flight crew. Ms. Kate O'Brien is here and	19	
20 will come forward.		0 MR. PIKE:
21 MR. JOHN ANDREWS AND MR. HOWARD PIKE, CROSS-EXAMINA		
22 BY MS. KATE O'BRIEN		2 MS. O'BRIEN:
23 MS. O'BRIEN:	23	
	123	3 Q. Okay. So you re saying since 97, there may
24 Q. Thank you, Commissioner. I just have two what	23	

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1 sure right now?	1 MS	. O'BRIEN:
2 MR. PIKE:	2	Q. Do you see yourselves as being responsible for
3 A. I'm not sure at this time.	3	assuring the plans themselves are not
4 MS. O'BRIEN:	4	deficient?
5 Q. Okay. The other question I have, Mr. And	lrews, 5 MR	. ANDREWS:
6 relates more particularly, I think, to your	6	A. That is clearly the role of the operations and
7 testimony. You had said quite clearly that	at 7	safety department in conducting their review
8 the Board, the C-NLOPB, is not responsible	for 8	and assessments to ensure that there are no
9 the safety of workers and you clearly see the	hat 9	gaps or deficiencies in the safety plan.
10 responsibility with the operators.	10 MS	. O'BRIEN:
11 MR. ANDREWS:	11	Q. Okay. Thank you very much. Those are all my
12 A. Yes.	12	questions.
13 MS. O'BRIEN:	13 MR	. PIKE:
14 Q. And I understood your testimony in that	at 14	A. If I could give one clarification, I'd just
15 regard, but the question I have is as part of	f 15	referred to my notes. In actual fact, since
16 their application process for authorization.	, 16	2000, we had four specific inspections or
17 they submit to you a safety plan?	17	audits at the Cougar facilities. They would
18 MR. ANDREWS:	18	have incorporated as part of other audits.
19 A. Yes.	19 MS	. O'BRIEN:
20 MS. O'BRIEN:	20	Q. Sorry, since? I missed the year.
21 Q. Okay, and you assess that safety plan an		PIKE:
that's one of the things that have to be to	22	A. 2000. Four of the 261 audits or inspections I
23 your satisfaction before you actually issue	e 23	referred to would have included an inspection
24 the authorization?	24	or audit of the Cougar facilities.
25 MR. ANDREWS:	25 MS	. O'BRIEN:
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1 A. Yes.	-	Q. Would those have been safety audits or
2 MS. O'BRIEN:	2	security audits or both?
3 Q. Okay. So if there was an issue with a	3 MR	. PIKE:
4 deficiency in the plan itself, so if a worker	4	A. They would have been only securitysorry,
5 safety incident arose and it wasn't becaus	se 5	safety audits.
6 the operator wasn't following the plan, sa	ay 6 MS	. O'BRIEN:
7 they were following the plan exactly as it h	had 7	Q. Those are specific safety audits, okay. Thank
8 been set out, but it was ultimately found th		you very much.
9 there was some deficiency in the plan itsel		. PIKE:
10 would the C-NLOPB bear some of the		A. I believe there were three security audits.
11 responsibility then?		. O'BRIEN:
12 MR. ANDREWS:	12	Q. As well?
13 A. The responsibility of the operator, of our		. PIKE:
14 role as a regulator, is to verifyto oversee		A. Yes.
and to verify to the plan that has been		. O'BRIEN:
approved. Obviously when a safety plan	is 16	Q. Thank you.
17 provided to the regulator, we would condu		MMISSIONER:
assessment and a review and hopefully wo		Q. Okay, thank you.
able to have observed any deficiencies that		IL, Q.C.:
20 were in the plan. But I would have to say, a		Q. Commissioner, in the protocol developed, we
21 the lawyer, that our role is to oversee the	21	now have a final opportunity for counsel for
implementation of that plan and to verify the	hat 22	the party being examined, which is in this
23 it remains in play and observed by the		case, the C-NLOPB. So once again, in this
24 operator, even if, in fact, there is a	24	case, Ms. Crosbie has an opportunity to ask
25 deficiency in that plan that has continued.	25	questions.

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1 MS. CROSBIE:	1 terms of would there be any value to C-NLOPB
2 Q. I have no questions.	2 also being made aware of that reporting?
3 MR. JOHN ANDREWS AND MR. HOWARD PIKE, RE-EXAMINATION	Y 3 MR. PIKE:
4 JOHN ROIL, Q.C.	4 A. We've certainly become aware since March of a
5 ROIL, Q.C.:	5 database that is on the website of Transport
6 Q. And she indicates that she has no questions.	6 Canada Aviation which does list, I think it's
7 The final is for Inquiry counsel itself to ask	7 referred to as the CADORS database. That's
8 questions and I have a couple that have	8 something we've more recently become aware of
9 arisen, I guess, in terms of notes between Ms.	9 and we are beginning to refer to that to check
10 Fagan and I and not necessarily as a result of	10 incidents that have been reported to Transport
11 arising out of anything that was being asked	11 Canada against incidents.
12 by the others, and because we're not into a	12 ROIL, Q.C.:
13 strictly courtroom protocol, I'll take this	13 Q. Okay. Could you define or sorry, spell that
14 opportunity to ask a couple of questions. For	14 word for the database?
15 Mr. Pike, the first question is, you had said	15 MR. PIKE:
16 in your direct evidence aboutyou made	16 A. I think it's an acronym and it's C-A-D-O-R-S
17 mention of the requirement for Transport	17 ROIL, Q.C.:
18 Canada to be alerted to aviation near misses	18 Q. CADORS.
19 or aviation incidents, aviation occurrences.	19 MR. PIKE:
20 I'll try to not use the word "incidents"	20 A. Yes, and I think that refers tothe aviation
21 because it gets defined in some of your	21 industry is wonderful for acronyms. I'm sure
22 regulations, but incidents, in other words	22 it refers to some sort of reporting system
that, for example, a helicopter would be	that Transport Canada has.
24 flying too close to another helicopter, which	24 ROIL, Q.C.:
25 I think is defined as a near miss. Does that	25 Q. Well, we will have Transport Canada here and
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1 get reported to the C-NLOPB as well? I think	they can explain in more detail. So you have
2 is the question that I have for you, or do you	2 access to that database?
3 rely on being notified for Transport Canada	
4 Is there an opportunity for a gap there or is	4 A. My understanding is it is available on their
5 that a tight process?	5 website and we have referred to it and noted
6 MR. PIKE:	6 that there are a number of incidents they have
7 A. We would not be notified by Transport Car	
8 of incidents reported directly to Transport	8 that would not necessarily have triggered an
9 Canada.	9 incident report in our case, but would have
10 ROIL, Q.C.:	10 under the Transport Canada system.
11 Q. So incidents that are reportedand again,	11 ROIL, Q.C.:
12 you're speaking to me casually, rather than	
13 speaking to the room.	13 your regular diligence now that you do monitor
14 MR. PIKE:	14 that website?
15 A. Sorry.	15 MR. PIKE:
16 ROIL, Q.C.:	16 A. We would from time to time check that website,
17 Q. Incidents that are reported to Transport	17 yes.
18 Canada as a result of their regulatory regim	
do not necessarily get reported to you? Is	19 Q. There was mention made in your direct evidence
20 that the answer?	20 of security as it goesas you go out to the
21 MR. PIKE:	21 heliport, there's an understanding that there
22 A. Yes.	is a scanning process. I don't know that you
23 ROIL, Q.C.:	23 use the word "scan" but it is my understanding
24 Q. Okay, and do you see this as a deficit or is	that there is a scanning process when one gets
25 there an opportunity for improvement there	in 25 on the helicopter, much like you would have in

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1 an airport, a metal detecting and that kind of	1 A. I don't have detailed knowledge of that. My
2 thing. Is that correct?	2 understanding is that that may not be the
3 MR. PIKE:	3 case. It depends on what shift the individual
4 A. Yes, both the individuals and luggage.	4 worker is working. So if they had been on
5 Luggage is x-rayed and individuals would go	5 nights and it was their time to get off, they
6 through a scanner, yes.	6 may have had some opportunity to do that and
7 ROIL, Q.C.:	7 they may not. I'm notI don't have detailed
8 Q. Okay. Is there a similar scan on board the	8 knowledge of that.
9 installations for when a worker gets back on	9 ROIL, Q.C.:
board and is returning to his or her home?	10 Q. Okay. So the ability to have a rest before one
11 MR. PIKE:	11 boards the aircraft to return might depend on
A. Not to my knowledge.	12 the timing of the arrival of the helicopter,
13 ROIL, Q.C.:	13 which might be subject to weather, and it
Q. What is the purpose of the scan, from your	14 might be dependent upon the time that the
understanding?	15 worker finished his last shift?
6 MR. PIKE:	16 MR. PIKE:
A. It would be to detect things that are not	17 A. Yes, that would be my understanding.
supposed to be brought out to the	18 ROIL, Q.C.:
19 installation.	19 Q. Commissioner, those are all the questions that
20 ROIL, Q.C.:	20 are from the participants and the parties of
Q. Okay. Would it be advantageous, from the	21 standing and from Inquiry counsel. I suspect
perspective of the C-NLOPB, for there to be a	that you may have some yourself.
23 scan of individuals after they leave the	23 COMMISSIONER:
installation and come to shore?	Q. I just have one or two, thank you. Mr. Pike,
25 MR. PIKE:	25 you're probably the most appropriate person to
Page	C C
1 A. That's something we have never considered in	1 direct the question to. You've spoken of the
2 the past, but it is certainly an interesting	2 safety officers, you know, who make visits to
3 question that we will follow up with. It's	3 the rigs. Are they allis there always a
4 not something that's commonly done. A lot of	4 safety officer on the installations, each of
5 our protocols are utilized in the North Sea.	5 the installations, or how much time do they
6 Certainly the North Sea workers are scanned on	-
7 their way out, but to my knowledge, they're	7 MR. PIKE:
8 not scanned on the way back in. So it would	8 A. We do not have a safety officer on board an
9 be a different protocol. It's an interesting	9 installation at all times, no. As I
0 question but not something that we had turned	10 indicated, we make audits or inspections.
11 our minds to.	11 Normally we will be out every three months.
2 ROIL, Q.C.:	12 That would be our normal rotation. That may
Q. Okay, and another question that is somewhat	13 vary, depending on circumstances.
related to the issue of workers going out and	14 COMMISSIONER:
returning. We do know that before a worker	15 Q. And the length of the stay of the safety
goes out, he or she has the opportunity to	16 officer to observe everything and talk to
rest at home and that they are presumably not	17 people and that sort of thing?
in any degree of tiredness or distress as they	18 MR. PIKE:
leave. What about when workers are returning?	
Is there an opportunity for a rest time before	20 inspection. It could be as little as two
workers are boarding an aircraft, a	21 days. It could be five days, or longer if
helicopter, to return at the end of their	22 necessary.
three-week shift or is that something that you	23 COMMISSIONER:
24 would know about?	24 Q. I see, okay.
25 MR. PIKE:	25 MR. PIKE:

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1 A. But generally, they would be in the range of	of 1		Defence, and so I would respectfully ask that
2 two to five days.	2		you take this opportunity perhaps to deal with
3 COMMISSIONER:	3		that and these two gentlemen can go back and
4 Q. I see. I should imagine that when a safety	4		sit in their regular places.
5 officer is on an installation, aside from the	5	COM	MISSIONER:
6 formal reporting mechanisms and meetings	and 6	Q.	Yes. Yes, Ms. Fagan?
7 all that, there would be a fairly constant			FAGAN:
8 discussion of possible -	8	Q.	Commissioner, as noted in your opening
9 MR. PIKE:	9		remarks, you had indicated that you had
10 A. Yes.	10		received statements from the Department of
11 COMMISSIONER:	11		National Defence with respect to their role in
12 Q improvements and whatever might occur t	to the 12		search and rescue and that you would provide
13 safety officer and to the people on the	13		those statements within a couple of days. We
14 installation. Is that so?	14		have those statements. They have been marked
15 MR. PIKE:	15		as proposed exhibit 50 and proposed exhibit
16 A. Yes, that would be the case.	16		51. The statements have been provided to the
17 COMMISSIONER:	17		counsel for the parties with standing through
18 Q. Are these valuable exchanges?	18		our Filebridge system, and we would like to
19 MR. PIKE:	19		have those two exhibits formally entered and
20 A. My understanding from my safety officers			marked. Once they are entered and marked,
21 yes, they are.	20 21		they will be available on the website of the
22 COMMISSIONER:	22		Inquiry for the public to review and as well,
23 Q. I see. Okay then, thank you. That's all the	22		we've made copies for the media. So if it's
questions I have. Thank you both for bein			acceptable, I'd like to have Exhibit 50 and
25 here.	25		51, which are the statements from the
	ge 106		Page 108
1 ROIL, Q.C.:	1		Department of National Defence with respect to
2 Q. Okay, Commissioner, that is the last of the			their role in search and rescue.
3 evidence from the C-NLOPB. We have a con			MISSIONER:
4 of interesting issues arising. One is, of	4		Okay, thank you very much. So you will enter
5 course, we had our first scheduling anomal			these now then as Exhibits and they would go
6 We were not certain when we started the	-		on the website approximately when?
7 process how long the questioning would be			STRAR:
8 other parties, and I took a day and a bit of			Shortly.
9 today, and we had anticipated that there wo	-		MISSIONER:
10 be more questioning than there was. So w			Very shortly, okay then, that's done. Thank
11 don't have any other witnesses available fo		Q.	
12 today or for tomorrow. The next witnesses a		MSE	you. AGAN:
12 from Transport Canada and they are comin			Thank you. That should be the evidence now
14 Newfoundland on the weekend to be available	-		for this week and unless you have something
			else to add?
			else to add? MISSIONER:
<ul><li>schedules and bring them in advance, so we</li><li>have a time now that we, I guess, have to</li></ul>		-	I don't know if anybody has anything else to
			raise maybe on a practical matter or
-			logistical matter, vis-a-vis the hearings. If
20 there is some documentation that Ms. Fagar			there is anything anyone wanted to raise, now
21 you have discussed.	21		would be a good time to do it. Is there
22 COMMISSIONER:	22		anything? No. All right then, we'll adjourn
23 Q. Yes.	23		and be back on Monday morning.
24 ROIL, Q.C.:	24	ADJO	OURNED TO MONDAY, OCTOBER 26, 2009 AT 9:30 A.M.
25 Q. With respect to the Department of Nationa	ai		

Oct	ober 21, 2009	Multi-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
		Page 109	
1	CERTIFICATE	C	
2	We, the undersigned, do hereby certify that		
3	the foregoing is a true and correct transcript of a		
4	hearing heard on the 21st day of October, 2009		
5	Tara Place, 31 Peet Street, Suite 213, St. John's		
6	Newfoundland and Labrador and was transcribe		
7	to the best of our ability by means of a sound		
8	apparatus.		
9	Dated at St. John's, NL this		
10	21st day of October, 2009		
11	Cindy Sooley		
12	Discoveries Unlimited Inc.		
12	Judy Moss		
1	Discoveries Unlimited Inc.		
14	Discoveries Unimited Inc.		
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