OFFSHORE HELICOPTER SAFETY INQUIRY February 3, 2010 Tara Place, Suite 213, 31 Peet Street St. John's, NL

#### February 3, 2010

#### PRESENT:

John F. Roil, Q.C./ Anne FaganInquiry Counsel
nine i agaittining of the second
John Andrews/Amy Crosbie Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)
Cecily Strickland/Ian Wallace Hibernia Management and Development Company (HMDC)
Denis Mahoney/D. Blair PritchettSuncor (Petro-Canada)
Alexander C. MacDonald, Q.C./ Stephanie Hickman
Laura Brown Laengle
Norman J. Whalen, Q.C./ Michael CohenCougar Helicopters Inc.
Jamie MartinFamilies of Deceased Passengers
Kate O'BrienDavis Estate (Pilot) and agent on behalf of Douglas A. Latto for Lanouette Estate (Co-pilot)
V. Randell J. Earle, Q.CCommunications, Energy and Paperworkers Union 
David F. Hurley, Q.C Offshore Safety and Survival Centre, Marine Institute
Mark FreemanDepartment of Transport Canada

# TABLE OF CONTENTSFebruary 3, 2010

#### MR. RICHARD WAYNE BURT (PREVIOUSLY SWORN)

#### MR. BRADLEY HANK WILLIAMS (PREVIOUSLY SWORN)

#### MR. RICHARD DANIEL BANKS (PREVIOUSLY SWORN)

Discussion	Pg. 1
Examination by Anne Fagan (cont'd)	
Examination by Commissioner	Pgs. 241 – 247
Certificate	Pg. 248

February 3, 2010	Multi-Pag	e <sup>TM</sup> Offshore Helicopter Safety Inquiry
	Page 1	Page 3
1 February 3, 2010	1	travel on commercial airlines are used to
2 COMMISSIONER:	2	either the flight attendant doing it or it's
3 Q. Good morning, ladies and gentlemen.	Ready, 3	in a video screen in front of you. This video
4 Ms. Fagan?	4	is, as Ms. Fagan had indicated, is roughly
5 MS. FAGAN:	5	about 12 to 15 minutes long. It's a
6 Q. Yes, Commissioner. This morning, bet	fore we 6	combination of requirements the video is
7 begin, we would like to have one correct	ction 7	comprised of. We are regulated and must show,
8 made. We're not there yet, but in th		as per CARS, Canadian Aviation Standards, we
9 PowerPoint, we realize that there's a sli	ght 9	must show items on the aircraft, emergency
10 correction should have been made to slic		exits, any where the fire extinguisher is
11 So we would ask that Exhibit 155 be rev	ised to 11	located, first aid kits. That's our
12 have slide 61 replaced, and it's only o	ne 12	regulatory requirement. There's about maybe
13 phrase in slide 61. It's a long list of item	s 13	five, five and a half minutes that's a
14 and an item that should have been on the	e list 14	regulatory requirement from a Transport Canada
15 just wasn't listed. So we've added that it	em. 15	point of view. The rest of the video is made
16 COMMISSIONER:	16	up of a combination of Board requirements, C-
17 Q. Would you prefer to tell counsel what it	is, 17	NLOPB, and operator specific items that's
18 so they'll be alerted when it -	18	there.
19 MS. FAGAN:	19	So it's a combination of requirements
20 Q. When it comes up, and -	20	that's packaged into one pre-flight video and
21 COMMISSIONER:	21	that video is shown every time an individual
22 Q. Because it'll be different from what the	ney 22	steps on a helicopter and it's shown at the
23 have.	23	heliport when they leave and it's shown when
24 MS. FAGAN:	24	they return in the heli-admin offshore. So
25 Q. Right, and counsel for Cougar Helicopte	ers has 25	every time an individual steps on a helicopter
	Page 2	Page 4
1 already circulated a copy of slide 61 to all	1	and returns, and I must say, at the heliport,
2 the parties so that they have it.	2	I think passengers pay more attention to that
3 COMMISSIONER:	3	video than most people on commercial airlines.
4 Q. Oh well, in that case, that's fine then. All	4	You don't you won't see anyone reading a
5 right then, the amendment will be inserted.	5	newspaper when they're watching that pre-
6 MS. FAGAN:	6	flight video, and many times I've been on
7 Q. Okay, thank you.	7	fixed wing aircraft and commercial aircraft
8 COMMISSIONER:	8	and how many people is really watching that
9 Q. Okay.	9	video, and I have to give kudos to passengers.
10 MR. RICHARD BANKS, MR. RICHARD BURT AND MI		They really do watch this video. So Ms.
11 WILLIAMS, EXAMINATION BY MS. ANNE FAGAN (CON		Fagan.
12 MS. FAGAN:		S. FAGAN:
13 Q. Thank you. Now we're going to have a vic		Q. Okay, thank you. Well, the Registrar had been
14 played and I would just like I believe Mr.	14	alerted because this video takes a little
15 Williams is going to just describe what this	15	while to load, so I think it's ready to go.
16 video is. It's just over 15 minutes. I think	16	(VIDEO STARTED)
17 it's either 15 or 16 minutes, and it's the	17	Cougar Helicopters is committed to
18 pre-flight safety video. It's a little longer	. 18	providing all personnel with safe
19 than what we would hear if we were on a A		transportation to and from your offshore
20 Canada and I'd just like Mr. Williams to	20	location. This video will help familiarize
21 explain what we're going to see in this video		you with the features, equipment and safety
22 and why it's 15 or 16 minutes long.	22	procedures required for travel on the Sikorsky
23 MR. WILLIAMS:	23	S-92. Estimated flight time to your
A. Okay. The video you're about to see is a pro		destination is approximately one hour and 15
25 flight briefing video. Of course, many people	e 25	minutes.

Febru	uary 3, 2010	Multi	-Page <sup>™</sup>	<sup>4</sup> Offshore Helicopter Safety Inquiry
	]	Page 5		Page 7
1	Cougar Helicopters has strict policies	U	1	These are accessible by either hand. A buddy
2	concerning the possession of contraband item	ns.	2	line is located on the left chest. When
3	Alcohol, firearms, weapons, matches and	l	3	protection is needed for your hands, pull out
4	cigarette lighters are forbidden. Electronic		4	the gloves located on the forearm pockets.
5	equipment such as cell phones, pagers and		5	Once the gloves are on, the straps can be
6	cameras are not permitted to be used offshore	e	6	adjusted for your comfort and security. The
7	and therefore will not be allowed on the		7	spray shield is located at the back of the
8	helicopter. Personal computers may be		8	neck and can be used for additional protection
9	transported at your own risk if you are within	1	9	from rain or spray.
10	ten kilometres of your personal baggage		10	A HUEBA is a helicopter underwater
11	payload limitation. Cougar has a no smoking	g	11	emergency breathing apparatus. It is designed
12	policy while travelling on the helicopter.		12	with enough compressed air to assist you in an
13	All prescription and non-prescription		13	escape from a partially or totally submerged
14	medications must be declared when you che	eck	14	helicopter. This system is based on the same
15	in. Ball caps are not permitted to be worn		15	design as a self-contained underwater
16	and must be stowed in baggage. Newspapers	are	16	breathing apparatus known as SCUBA. You may
17	prohibited on board the helicopter. Only		17	already know how to operate SCUBA equipment
18	magazines and books are allowed in the		18	and this safety equipment operates in the same
19	passenger cabin. They must be placed inside	e	19	way.
20	your suits when walking to and from the		20	If a HUEBA is used correctly, it will
21	aircraft. Earplugs or headsets must be worn		21	provide its user with additional confidence
22	before embarking or disembarking the aircraft	ft.	22	and time for helicopter egress by supplying
23	Helly Hansen is proud to supply the		23	air when needed. The main benefit is extra
24	Nautilus E452 survival suits. The Nautilus		24	time to escape from a partially or totally
25	E452 is approved to both Transport Canad	a	25	submerged helicopter. The endurance of the
		Page 6		Page 8
1	marine and aviation standards. The suit is		1	system can vary from person to person due to
2	designed to meet your thermal protection and		2	breathing rate and depth. The number one rule
3	floatation needs and is equipped with various	3	3	is to breathe normally both in and out on the
4	lifesaving accessories. Please watch the		4	way to the surface. The reason for this rule
5	video carefully for important safety		5	is this: if you hold your breath after
6	information.		6	breathing compressed air, on return to the
7	Once you have received your suit, inspect		7	surface it is possible to damage your lungs
8	its general condition. Once you have checked	d	8	and suffer an air embolism due to the pressure
9	the suit, tuck your pants into your socks and		9	decrease and the air volume increase in your
10	safely store any watches, rings and sharp		10	lungs, but this is easily prevented by
11	objects. Sitting makes it easier to don the		11	breathing normally while returning to the
12	suits. Donning the suit is similar to putting		12	surface. This type of injury is very rare,
13	on work overalls. Make sure the wrist seals		13	but it can be life threatening and it requires
14	are adjusted to your size and comfort.		14	specialist treatment.
15	Familiarize yourself with the features and accessories of the Nautilus E452 survival		15	The pre-flight check is a simple visual
16		f	16	inspection and functional test carried out by the heliconter provider or the heli admin
17	suit. Ensure you know the location of each o these features. The suit is equipped with an	1	17	the helicopter provider or the heli-admin personnel offshore before you receive the
18 19	integrated inflatable life jacket meeting all		18 19	HUEBA device. If you suspect that your device
20	aviation and marine requirements. The suit		20	has any deficiencies, bring it to the
20	may be fitted with a helicopter underwater		20	attention of the heli-admin or helicopter
21	emergency breathing apparatus or HUEBA a	nd	21	provider personnel immediately. Once you
22	nose clips. The suit is also fitted with a	110	22	receive your HUEBA verify that the valve is on
23 24	personal locator beacon or PLB. There is also		23 24	by ensuring that the red indicator is not
24 25	a whistle and water-activated survival light.		24	visible and the pressure gauge is in the green
25	a winste and water-activated survival light.		25	Dage 5 Dage 9

Februa	ary 3, 2010	Multi	-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
		Page 9		Page 11
1	zone. The dust cover on the second stage	;	1	clearly marked. All cabin and window exits
2	regulator is designed to protect the mouth		2	will illuminate in an emergency. Handles for
3	piece and should only be removed durin	g	3	activation of exits will also be illuminated.
4	emergency situations.	-	4	An emergency locator transmitter or ELT
5	To use the HUEBA underwater do the		5	is located in the front of the cabin.
6	following: First, remove the nose clip from	1	6	Instructions are provided on the unit. The
7	the suit and place it on your nose. Next,		7	ELT must be immersed in water to activate.
8	grasp the second stage regulator or deman	d	8	There are two on board fire
9	valve on your left shoulder with either one		9	extinguishers, one located in the cockpit and
10	hand or two and pull it clear of its dust		10	the other in the passenger cabin. There is
11	cover. Pull the hose clear from the suit		11	also a first aid kit in the main cabin. In
12	velcro. Now, place the demand valve in yo	our	12	the event of an emergency in the passenger
13	mouth and form a seal using your lips on th	ie	13	cabin during the flight, leave your seat, go
14	outside of the mouthpiece. Support the dem	and	14	forward and inform the flight crew.
15	valve in your mouth by lightly gripping it		15	There are two externally mounted life
16	with your teeth following the areas on the		16	rafts on the Sikorsky S-92 located in the
17	inside of the mouthpiece which are designed	d to	17	forward section of the sponsons. These will
18	be gripped by your teeth. Do not bite dow	n	18	normally be activated remotely by the flight
19	hard as this could damage the mouthpiece	e.	19	crew from the cockpit. There are three
20	When underwater, blow forcefully through	the	20	floatation bags located on the helicopter, one
21	mouthpiece. This will clear the water from	1	21	on either side of the cockpit and the other
22	the demand valve. If you are unable to clea	r	22	under the tail boom. If an emergency landing
23	the water with a forceful breath, you can use	e	23	on water is necessary, the floatation bags
24	the purge button on the front of the demand	d	24	will be activated by the flight crew upon
25	valve. You can also place your tongue in th	e	25	landing.
		Page 10		Page 12
1	mouthpiece orifice to make this easier. The	-	1	When your flight is called, carefully
2	use of the purge button should be kept to a		2	follow the boarding instructions of the
3	minimum because it decreases the enduranc		3	escort. Always follow your escort and
4	the unit. Once you have cleared the unit, yo	ou	4	approach the helicopter in single file from
5	can inhale air from the system while		5	the side and in view of the pilots. Exercise
6	completing your escape. You must try to	)	6	caution when walking around the front of the
7	control your breathing, remembering to brea		7	helicopter to avoid contact with the pitot
8	both in and out only through your mouth. O		8	tubes. Avoid the tail rotor at all times.
9	you begin breathing from a HUEBA it is vital	lly	9	When embarking and disembarking, only one
10	important that you do not hold your breath		10	person at a time is permitted on the stairs.
11	If the unit runs out on the way to the		11	Once inside the helicopter (no audio)
12	surface, keep the mouthpiece in your mout	h.	12	fasten your seatbelt. The seatbelts in the S-
13	This will remind you to breathe out on the v	vay	13	92 are the four-point harness type. To
14	to the surface and you may also receive		14	fasten, secure the strap around your waist.
15	additional air as the pressure decreases and		15	Lock into the buckle, pull down the shoulder
16	residual air in the cylinder may become		16	straps and lock into place. Adjust the waist
17	available.		17	straps one side at a time for comfort. To
18	The helicopter has three emergency exits	,	18	release, turn the knob. Seatbelts and
19	two located in the rear of the cabin and one		19	headsets should be worn during the entire
20	located in the forward section opposite the		20	flight. You must be able to hear
21	main cabin entrance. The main cabin door	is	21	announcements from the flight crew at all
22	the standard passenger exits and can also be	e	22	times. Please read the safety briefing card
23	used in an emergency. In addition to the		23	located in the seat pocket in front of you or
24	three emergency exits, there are ten window		24	adjacent to you.
25	that are designated as emergency exits and a	are	25	In the event of an emergency, the pilot
				Daga 0 Daga 12

Febru	uary 3, 2010	Multi	-Page <sup>TI</sup>	M Offshore Helicopter Safety Inquiry
	Pa	age 13		Page 15
1	will advise you to prepare for ditching. If		1	are accessible.
2	this occurs, remove your headset and place or	n	2	On entering the water, inflate your
3	your knee. Tighten your seatbelt. Remove	;	3	lifejackets pull the yellow tab downwards
4	your eyeglasses. Don the hood and close the	e	4	toward your feet. The lifejacket can also be
5	front zipper. Check for your gloves and		5	inflated and deflated manually using the
6	tighten the wrist seals. Be sure you know		6	integrated oral inflation tube. Do not
7	where the nearest emergency exit is located.		7	inflate the lifejacket while in the aircraft.
8	When the pilot issues the command "brace	,	8	The Sea Marshall PLB will be activated
9	brace, brace" assume the brace position.		9	automatically upon contact with the water.
10	Remain in this position until the helicopter		10	When protection is needed for your hands, don
11	has landed.		11	the gloves located on the forearm pockets.
12	If the helicopter lands on water, remove		12	Note again the locations of your whistle and
13	the windows immediately and prepare for	r	13	buddy line. Remember, the spray shield is
14	evacuation. Listen for instructions from the		14	located at the back of the neck and can be
15	flight crew. To remove an emergency wind	ow	15	used for additional protection from rain or
16	exit, strike any corner. To open the main		16	spray. Board the life raft using the ramps
17	cabin door, rotate the upper door handle and		17	provided. Should an emergency occur, be
18	slide the door rearward. To jettison the		18	assured that help is on the way.
19	other three cabin emergency exits, rotate the		19	In preparation for landing or the air
20	handle. The wire will break free. Push the		20	crew advises you to do so, don your hood and
21	bottom of the hatch.		21	close the front zipper. Once the helicopter
22	If the helicopter has landed on its side,		22	has landed on the installation, remain seated
23	the seats can be used as a ladder to aid in		23	with your seatbelt fastened until the seatbelt
24	climbing out the nearest emergency exit.		24	sign has been turned off.
25	Each individual must decide for		25	When instructed, disembark the aircraft.
	Pa	age 14		Page 16
1	themselves when to use a HUEBA, but there are	re	1	Cross the helideck with caution. Walk on the
2	a few important considerations. It is vitally		2	netting, not in between the netting. Pick up
3	important to carry out the ditching procedures		3	a piece of baggage nearest you or from the
4	that you have been taught. These procedures	s	4	deck crew and proceed directly to heli-admin.
5	are designed to minimize the possibility of		5	Follow your escort. Always ensure that you
6	being injured on impact and they should not be		6	have the free use of one hand as it is
7	compromised by trying to operate the HUEB.		7	mandatory that you hold the handrail at all
8	Remain in the brace position during the impa	ct	8	times when walking to and from the helideck.
9	phase. Make sure you take a breath. If you		9	Remember, it is imperative that you
10	can place the regulator in your mouth before	:	10	follow all helicopter safety instructions.
11	you go under water, then do so. If you		11	When it is time to board the helicopter,
12	cannot, follow the procedure described		12	follow the escort's instructions and walk
13	previously on how to clear it under water and	1	13	single file. Always approach the helicopter
14	continue with your egress.		14	from the side and in view of the pilots.
15	Normally the flight crew will remotely		15	Avoid the tail rotor at all times. Only one
16	activate the sponson-mounted life rafts from		16	person at a time is permitted on the stairs.
17	the cockpit. They can also be activated by		17	When offshore, pay close attention when
18	pulling on the red handle until the life raft		18	walking on the netting and down the stairs.
19	begins to inflate. Ensure the rotors have		19	Wear your seatbelt and headset throughout the
20	stopped prior to activating the life rafts.		20	flight. Prior to landing and departure, don
21	The life rafts should be boarded from the		21	your hood, close the front zipper and tighten
22	aircraft whenever possible. Sometimes,		22	the seals. It is important to remember the
23	however, it is necessary to board the life		23	emergency procedures for ditching and always
24	raft from the water. In such a situation,		24	follow the pilot's instructions. Remember to
25	make sure your lifejacket inflation toggles		25	ask questions if there is anything you don't

February 3, 2010	Multi-Pag	ge <sup>™</sup> Offshore Helicopter Safety Inquiry
1	Page 17	Page 19
1 understand. Once you've reached you	ır 1	that's been an ongoing change and I think I
2 destination, remain seated until the seatbelt	2	have a little bit more information on a slide
3 sign is turned off. Leave the helicopter as	3	a little later on.
4 instructed by your escort. Please read the	4 N	IS. FAGAN:
5 safety briefing card. Enjoy your flight.	5	Q. Okay.
6 (VIDEO ENDED)	6 M	IR. WILLIAMS:
7 MS. FAGAN:	7	A. About the goggles being moved, and the video
8 Q. You have said that that video is played on t	the 8	is always changing depending on anything we
9 way out and on the way back. We also say	win 9	change in our operation, and that's the
10 the video a reference to a passenger briefing	-	immediate fix right there now for the goggles
11 card and I understand that the card, as well	l 11	is to put a caption in there, but there is
12 as the HUEBA instruction card, is on the	12	ongoing to get the audio back in in that
13 aircraft. Is that correct?	13	little slot as well, yes.
14 MR. WILLIAMS:		IS. FAGAN:
15 A. That is correct. There's a copy of each of		Q. Okay, thank you. You noted that this is
16 those available for every passenger that's o	n 16	what's played when the workers leave the rig
17 board.	17	or the platform. There was some information
18 MS. FAGAN:	18	provided in other presentations as to the
19 Q. Okay. They have been entered as Exhibit		process on the helideck itself and we had
and 160 and I understand Mr. Williams has		heard that Cougar has been involved in either
21 actual card, which we're going to have just		training or dealing with the helideck crew.
22 passed around as the presentation continue		So has Cougar Helicopters trained or provided
and copies of these cards are in the packag		any information to the helideck crew? And
24 of exhibits as well.	24	these are the people that manage the landing
25 Now we noted on the video, there was a		and the movement of the passengers on the rig
	Page 18	Page 20
1 section there in the middle where the audio		or the platform.
2 there was no audio and then there was a		IR. WILLIAMS:
3 message along the bottom and it had to do y	with $3$	A. Yeah. Well, I want to be clear, we do not
4 the goggles.		we do not offer helicopter landing officer courses, but as part of the HLO courses that's
5 MR. WILLIAMS: 6 A. Correct.	5	offered through the Marine Institute, we play
6 A. Correct. 7 MS. FAGAN:	6	a little segment in that and what we are
<ul> <li>8 Q. And I noted in the video that the goggles w</li> </ul>	-	really concerned about is aircraft
9 strapped, I believe, to the seat, to the		familiarization. When there's an HLO course
10 seatbelt.	10	being offered, they will end up at our
11 MR. WILLIAMS:	10	facility for aircraft familiarization. All
12 A. Correct, yeah.	11	the HLOs, the helicopter landing officers and
13 MS. FAGAN:	12	the crew need to know specifics of the
14 Q. Is that a change? Because I know we		particular aircraft, how to refuel it, how to
15 questioned why is there no audio and now t		properly open the doors, close the doors, and
16 message on the bottom. Has there been		how to load and unload passengers. So
17 change with respect to the placement of th		basically the HLO team offshore, when a
18 goggles?	18	helicopter lands and takes off, becomes our
19 MR. WILLIAMS:	19	heliport personnel force. So they manage the
20 A. Yes, there has. If I can recall, one of the	20	passengers off and on the helicopter while
21 recommendations that came out of the He		it's offshore. So yes, we are involved, but
22 committee, the Helicopter Operations Ta		specifically on aircraft familiarization. As
23 Force, was that people were finding it	23	you've heard, we've changed from Pumas to 92s.
difficult to reach the goggles. The goggles		We have an S-61 here. So the landing crews
25 were always located beneath the seats. S		need to know specifics on the particular

Februar	ry 3, 2010	Multi-	P٤	age	Offshore Helicopter Safety Inquiry
	Pa	age 21			Page 23
1	aircraft that they will be servicing for us,		1		kit that we supply. We train the crews how to
2	yes.		2		use that. So they'll take that fuel and
3 MS. FA	AGAN:		3		they'll take a sample and have it ready. When
4 Q.	Okay, and it's these crews that look after the		4		we come in, as a flight crew, I would go out
5	passengers and the baggage? Is that correct?	?	5		and meet with the HLO. He would show me the
6 MR. W	/ILLIAMS:		6		sample, show me the clear and bright fuel and
7 A.	That is correct.		7		then I would give them the thumbs up to begin
8 MS. FA	AGAN:		8		refuelling.
9 Q.	How long does it take to offload passengers	,	9		So we know what the fuel condition is
10	baggage and then refuel and then load	1	10		before we start. We refuel the aircraft and
	passengers and their baggage? What's that	t  1	11		they have their procedures for that. Once
	process?		12		we're finished refuelling, again they take
13 MR. W	/ILLIAMS:	1	13		another sample. When we're finished, same
14 A.	That will vary, of course, depending on the	1	14		thing, have a look at the fuel visually. We
	amount of passengers, amount of refuel		15		do the Shell test kit as well, have a look at
	requires. We are not always refuelling	1	16		that visual test kit and again, you can
	offshore. Sometimes we are carrying enoug	gh 1	17		actually see if there's any water particles.
	fuel to return. So that varies, so an average	-	18		It's a very visual inspection, and then once
	would be about 20 minutes we spend on the		19		that is viewed as pass, the flight crew will
	offshore.		20		actually sign a document stating that it is
21 MS. FA	AGAN:		21		acceptable and then that flight then is
22 Q.	Okay. We also heard that the pilots conduct		22		secured from a refuelling point of view.
	fuel sample on the helideck.		23	MS. F	AGAN:
	/ILLIAMS:		24		Okay, thank you. Cargo, is cargo transported
25 A.	Correct.	2	25		in the passenger cabin, in the compartment
	Pa	age 22			Page 24
1 MS. FA		0	1		with the passengers on the S-92?
2 Q.	And I don't know which one of you want to look		2	MR. H	
	after that question, but what is that? We		3	A.	No, the cargo is actually transported in the
	heard it, but we haven't had a description of		4		rear compartment, in the ramp section of the
	that procedure. Why is that procedure taken		5		aircraft.
	and how did that develop or come about?		6	MR. V	VILLIAMS:
7 MR. BU	_		7	A.	A separate area of the aircraft.
8 A.	Right. I can speak to that. The fuel, first		8		AGAN:
	of all, in the helitanks, we call them,		9		Okay, and is there any reason that that is
	offshore, that fuel is actually the is	1	10		done? Why don't you put the cargo in with the
	Cougar's responsibility and the fuel quality.	1	11		passengers?
	We do train the staff offshore in the			MR. I	
	monitoring, what we expect from that, even		13		Well, we don't mix the two. We have no need
	when the tank arrives. There's samples of		14		to and no requirement to. We don't mix those
1	that tank that are logged and recorded. When		15		two, passengers and cargo.
	the aircraft and actually, before the			MS. F	AGAN:
1	aircraft comes in, the HLO will run the fuel		17		Okay. Has Cougar Helicopters had any
1	through the fuelling system and we have an		18		communication from the C-NLOPB with respect to
	inline fuel sampler that's designed to take a		19		the location of the cargo in the S-92?
	nice clear and bright, we call it, visual look			MR. V	VILLIAMS:
	at the fuel, clear and bright, and we say that		21		No. You know, our cargo carrying in the cabin
22	because you can see a slug of water in the		22		is strictly we operate under the Transport
	bottom. It's very detectable. And the other		23		Canada rules and I personally, and I don't
1	one is that it allows for a very secure		24		think our organization has any direct
1	sample. We use a Shell detection kit. It's a		25		consultation or information from the Board on
L		2			

Feb	ruary 3, 2010	Multi-Page <sup>T</sup>	M Offshore Helicopter Safety Inquir
	Pa	age 25	Page 2
1	any specifics about cargo.	1	have I mentioned each of our individual
2 N	IS. FAGAN:	2	operators have what we call a single point of
3	Q. Okay. So are you saying you follow the	3	contact, the logistics personnel, so our
4	Transport Canada regulations for cargo?	4	operations guy that day will definitely be
5 N	IR. WILLIAMS:	5	you know, most times before the aircraft gets
6	A. Correct.	6	back on the ground, there's communication that
7 N	IS. FAGAN:	7	the aircraft is turning around, this is what
8	Q. Okay. Now the slide, I believe, that's up is	8	it's turning around for.
9	slide 57 and that is the helicopter return	9	So we've had communications with the
10	notification protocol and what I'm looking f	or 10	passengers at this point. We've communicated
11	here is a description of what happens when	a 11	to the logistics group from the operators via
12	helicopter has to turn around and return to	12	phone, and more importantly, when the aircraft
13	St. John's or an alternate. For whatever	13	lands back on the ground, and what you'll see
14	reason, the helicopter does not land on the	14	when the aircraft lands back on the ground,
15	helideck on a rig or a platform as	15	you will see an operations individual go and
16	anticipated, and I understand there is a	16	speak to the pilots to get a further briefing,
7	protocol. We've heard information that, yo	u 17	a further update on why he turned around and
8	know, the communication to the passengers	is 18	you will see a briefing conducted, usually in
9	very important because this is very stressful	19	our briefing theatre, on a little bit more
20	to not land as you anticipated and to turn	20	detail than the pilot gave them in flight onto
21	around, and there's a lot of worry and stress.	. 21	reasons why they turned around. A lot of
22	So can you explain what happens?	22	times the pilot will come in with us and do
23 N	IR. WILLIAMS:	23	that, if it's in the event that we think we
24	A. Okay. I'll start off by saying not all	24	need more detail from him.
25	turnarounds are as a result of a mechanical	25	Subsequent to that, of course, the base
	Pa	age 26	Page 2
1	issue or any concern. We do turn around quit	e 1	operations manager or his delegate will
2	often if the weather changes in the weather	2	provide a brief summary to the operators via
3	in route or at our alternates, as was	3	e-mail of the details, why they turned around,
4	described yesterday, but I'd like to talk	4	and the biggest challenge here is most of the
5	about in the event that we would turn around	l 5	time people want the information exactly, the
6	because of any type of a mechanical issue or	6	term we use is timely and accurate. To get
7	any of those details.	7	accurate information, sometimes you need some
8	Of course we all when we all travel	8	time. So, you know, we work on that and a lot
9	our self, we're very interested to see what	9	of times, the passengers will be probably
0	that pilot is going to say to us over the PA	10	turned around and gone on a subsequent
1	system when we do turn around or we devia	te 11	aircraft or sometimes on the same aircraft
2	from our planned route. So the first thing	12	until we really get the details of what
3	that would happen on a turnaround is that one	ce 13	happened from our maintenance group. So that
4	the of course, priority one, the pilot will	14	can take anything from a few minutes to an
5	put his plan in place and his next step is to	15	hour to sometimes the next day before we
6	brief the passengers via the public address	16	really know what the assessment of the reason
7	system on the aircraft to a very briefing on	17	why we turned around or the details of that
8	why he's turning around and what his plans is		reason.
9	The pilot then will notify our dispatch office	19	So there's where we come into what we
0	and our traffic office of again, to the	20	call customer notification form. So what
1	reasons why he's turning around, so they car	n 21	we've committed to our customers is that
2	start preparations for anything they need to	22	our customers being our individual operators,
23	do.	23	that in 24 hours, we will have prepared what
	Once the aircraft gets back I should	24	we call customer notification form to you, and
24	say prior to the aircraft getting back, we do	24	that customer notification form will contain,

Fel	bruary 3, 2010 N	Multi-Page <sup>™</sup>	<sup>4</sup> Offshore Helicopter Safety Inquiry
	Pag	ge 29	Page 31
1	of course, the base, the date of the event,	1	example, a chip light.
2	the nature of the event, flight crew dialogue.	2 MR. V	WILLIAMS:
3	In any turnaround, our flight crew comes back	3 A.	We will know the reason for the turnaround,
4	and files under and it's a driven system	4	but we won't know the conclusion of the chip
5	that when they file their flight report, they	5	light.
6	have to give us details of that flight. So	6 MS. F	AGAN:
7	that will be entered into our system, the	7 Q.	Okay. So you'd know it's a chip light, but
8	dialogue, the pilots, what they words right	8	you won't be able to say why the chip light
9	from the pilot of why they turned around and	9	went off?
10	what was their event. That's on that customer		WILLIAMS:
11	notification form.		Correct.
12	And then, of course, we get the	12 MS. F	
13	maintenance actions. We get the maintenance	-	But when would if it was a chip light, when
14	actions onto whether they changed a componer		would sort of the determination or the
15	they did required a subsequent test flight.	15	investigation of the chip light be dealt with?
16	All the details is entered in there as well.		WILLIAMS:
17	And you will see comments there from the		Well, you know, it depends. If we're not
18	logistics comments, what was the impact on the		using all of our aircraft that day, the
19	activity. Did we did the passengers go out	19	priority is like let's take another aircraft
20	two hours later or they're going out the	20	and let's move the people offshore. But
21	subsequent day or these types of things. And	21	within we will pretty well assess that chip
22	there's an operations summary of what did that		light within two to three hours to see what
23	turnaround really mean to the operation, what was the impact.	23 24 MS. F	further maintenance action is required.
24 25	So that notification goes out in 24		Okay.
23		-	•
1	hours. So you know, if I can go back, we	ge 30	Page 32 WILLIAMS:
2	start from immediately on the turnaround the		But we're always not waiting two or three
3	pilot will brief the passengers, going right	3	hours before we put passengers on a subsequent
4	back to the end, at least 24 hours later we	4	aircraft and move offshore, or a substitute
5	have a customer notification event form in.	5	aircraft, I should say.
6	And it doesn't stop there if it was considered	6 MS. F	
7	a safety event. If it becomes a safety event,		Okay. So for example, let's say the
8	then it goes into our safety system for	8	maintenance department dealt with the chip
9	action. So that's basically the crux of what	9	light issue and had a conclusion, knew what
10	the communication on a turnaround that will		the cause was at midnight. They go in four or
11	happen within a 24-hour period.	11	five hours, they've taken the thing apart and
12	MS. FAGAN:	12	they figured it out and they now know. That
13	Q. I take it that it is quite possible that when	13	would be maintenance action. So that would be
14	the passengers are briefed I mean, I can	14	in the maintenance action portion of the
15	understand if the pilots are busy trying to	15	notification form?
16	fly the helicopter that, you know, they only	16 MR. V	WILLIAMS:
17	have so much time to brief the passengers.	17 A.	The customer notification form, yes.
18	But once you're back on the ground and then	18 MS. F	<sup>7</sup> AGAN:
19	the passengers go into the briefing room and	19 Q.	Okay. So that would meet the 24 hours, that
20	then there's an expectation that well, now,	20	would likely occur with that 24 hours?
21	you have to get on you know, go again on	21 MR. V	WILLIAMS:
22	another helicopter a half hour later. I	22 A.	Correct.
23	understand from what you're saying it is	23 MS. F	<sup>3</sup> AGAN:
24	possible that during that briefing, you may		Okay. So then what happens with the customer
25	not know the reason for the turnaround. For	25	notification form? I mean, where does that

Fel	oruary 3, 2010	Multi-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
	Р	age 33	Page 35
1	form go? You filled out the form, but when	re 1	search and rescue when required, but mostly
2	does it go? Who gets it?	2	perform medevac flights. Cougar's search and
3	MR. WILLIAMS:	3	rescue capability is recognized by the Federal
4	A. It goes to our single point of contact, which	4	Government as a taskable asset in its own
5	I mentioned was the logistics individuals for	5	response plans and protocols.
6	each company and they will fan it out as the		Cougar rescue specialists have a unique
7	see fit from there, and I don't want to speak	•	and diversified experience base in search and
8	for how they fan it out, but my understandir		rescue operations, such that we are recognized
9	is that this goes to the offshore workforce,	9	as a taskable asset through the JRCC or Joint
10	more specifically to any passengers that wa	s 10	Rescue Coordination Centre as part of Canada's
11	affected by that particular flight.	11	national SAR system. For the primary response
12	MS. FAGAN:	12	for SAR operations on the east coast remains
13	Q. Okay.	13	with the military in the 103 Rescue Squadron
	MR. WILLIAMS:	14	in Gander. There are occasions, however,
15	A. But it is you know, once we get it to them		where that asset may not be available, whether
16	they disseminate it how they see fit.	16	it be maintenance issues with their own
	MS. FAGAN:	17	aircraft, previously deployed on other
18	Q. Okay, and just to be clear, if it was a chip	18	operations or weather conditions in their area
19	light and the maintenance department wa		that may preclude them from responding. When
20	dealing with trying to determine the reasor		that occurs, then certainly they know Cougar
20	for the chip light, would that helicopter go	20	is prepared and able and willing to respond as
21	without that determination being made or w		required. Basically what that means is if an
22	you use a different helicopter?	23	event was to occur outside our primary
	MR. WILLIAMS:	23	response responsibility, which is oil and gas,
24	A. You mean the no, absolutely not. The	24	the response centre can contact Cougar,
25	· ·		*
		age 34	Page 36
1	aircraft would not be returned to service	1	request us to respond. Although operator
2	until there was a full evaluation of the	2	approval is required, we've got a pretty wide
3	reason for that chip light.	3	latitude in our ability to respond and
	MS. FAGAN:	4	certainly in life and death scenarios, we
5	Q. Okay.	5	would respond immediately and notify the
	MR. WILLIAMS:	6	operators as we initiate the response.
7	A. Yeah, absolutely.	7	The effectiveness of Cougar's response
	MS. FAGAN:	8	has been demonstrated time and again by
9	Q. Now, the next section is first response, and	9	successful deployment in a number of emergency
10	we have a video on first response and I thin		response and search and rescue operations. At
11	what we would do is probably play the vid		all times, there must be a serviceable
12	and then have a discussion as to the	12	helicopter on the ground ready to respond as
13	capabilities and the types of services that	13	an emergency response platform. We have eight
14	Cougar provides by way of first response a	nd 14	dedicated pilots who take turns rotating into
15	medevac. So that's the next video.	15	the emergency response role, where response is
16	(VIDEO PLAYED)	16	what they do exclusively. We also have 12
17	Rescue specialists. Although	17	full-time rescue specialists on staff.
18	contractually required to provide first	18	Cougar's rescue specialists are highly trained
19	response only, Cougar Helicopters has	19	professionals with skills that are truly world
20	developed the initial first response team to	20	class. Most are former military air crew
21	such a level that they are now capable of	21	hired because they have the specialized skills
22	search and rescue. Regardless, medevac h	as 22	and experience that we require.
23	always been a capability that complement	ed 23	When we recruit to hire rescue
	1		
24	both levels and has also evolved over the	24	specialists, we predominantly seek experienced

Fel	oruary 3, 2010 M	ulti-Paş	ge <sup>TM</sup> Offshore Helicopter Safety Inquiry
	Page	37	Page 39
1	rescue in the past. Our main target audience	1	requirement to be airborne, wheels up, within
2	for that is ex-military personnel, simply	2	one hour. The capability, we have rescue
3	because they come with a wealth of experience	3	specialists on board. We currently have now
4	and knowledge already and their operational	4	three rescue specialists. We call one a
5	procedures and equipment is very similar to	5	primary cabin attendant, a hoist operator, and
6	ours and they integrate into our system very	6	a rescue swimmer. The nature of the standby
7	smoothly and quickly.	7	is to provide search, as you've heard, and
8	Skills are kept current with 40 hours per	8	rescue services, as well as medical evacuation
9	month of ongoing training, on the ground, in	9	of emergency medical trips. So we have the
10	the air, from support vessels and in the	10	capability through our flight management
11	water.	11	system to do search patterns both day and
12	There's a constant training regiment	12	night. We have search lights on board for
13	within the search and rescue program at Cougar	13	night time as well, and radar, for that
14	Helicopters. We have minimum required	14	matter. The aircraft is equipped with a winch
15	standards. We constantly strive to exceed	15	or a hoist that will allow a rescue specialist
16	those minimum standards. There's required	16	to go down to the water to a life raft, to a
17	annual ground school. There's ground training	17	vessel, or to a platform, and extract an
18	exercises that take place, as well as flight	18	ambulatory or even a stretcher patient and
19	training exercises where we try to mimic as	19	bring them back up to the aircraft. So that
20	many potential response scenarios that we may	20	capability, of course, we have that full day
21	encounter, whether that be hoisting to the	21	time, we have as the video pointed out
22	water, to a ship or vessel, or even to land.	22	quite well, we have a limited night time
23	We do quite a bit of training over land as	23	application. We can do that to some well lit
24	well to hone our skills.	24	environment, such as a rig, or in some cases a
25	Cougar provides an all-weather daytime	25	supply vessel, and we have done that. The
	Page	38	Page 40
1	emergency response capability. At this time,	1	service and the nature of the service is
2	Cougar's nighttime emergency response	2	unique because it is basically supplied from a
3	capability is restricted to searching,	3	pool of three aircraft, or any aircraft in a
4	hoisting from well-lit areas and the	4	passenger configuration can be converted to a
5	deployment of airborne rescue kits or SCADs.	5	first response capability, and that also
6	However, Cougar is implementing an auto hove	er 6	explains the one hour dispatch time. If I
7	system that will enable full nighttime rescue	7	could, I could go into how that might happen.
8	operations once the system has passed	8 N	IS. FAGAN:
9	Transport Canada's stringent regulatory	9	Q. That would be fine. Go ahead and tell us how
10	approval process and crew training with the	10	you do it.
11	new system is completed.	11 N	IR. BURT:
12	(VIDEO ENDED)	12	A. Okay, sure. Typically the aircraft is in a
13	MS. FAGAN:	13	passenger configuration, so the sequence of
14	Q. Thank you. Now I believe Mr. Burt is going to	14	moving it to a first response would be, number
15	lead on this and have Mr. Banks join in at	15	one, removing seats from the aircraft. We
16	certain segments and I'll leave that to the	16	would have to install hoist on the aircraft,
17	panel to answer the questions as they see fit.	17	put in a seat or the tray, you know, so as we
18	The first question is we've seen in this video	18	hoist people up there's salt water there. We
19	a description of Cougar's capabilities. Could	19	would put in the search and rescue equipment.
20	you summarize the first response capabilities	20	In most cases it would have to be refuelled.
21	and how that's done?	21	The search and rescue team would also be
	MR. BURT:	22	called in. They may not be on site. That
23	A. Sure. The first response scope of work that	23	includes the rescue specialist and the flight
24	we're responsible for requires us it's a	24	crew. As the aircraft is prepped, there's
25	dedicated service, and that service, we have a	25	also some ancillary equipment such as the

February 3, 2010 M	Iulti-Page™Offshore Helicopter Safety Inquiry
Page	Page 43
1 search and rescue we have a special search	1 MR. BURT:
2 and rescue door that is installed on the	2 A. That's right.
3 aircraft to help effect that mission, and	3 MS. FAGAN:
4 that, of course, is a special piece of kit.	4 Q. Is there a what about the planning? If you
5 MS. FAGAN:	5 get a phone call from the rig or the platform,
<ul><li>6 Q. So the seats come out, the hoister winch has</li><li>7 to be attached?</li></ul>	<ul><li>6 how does the flight planning work and the</li><li>7 communication with the air traffic control?</li></ul>
8 MR. BURT:	8 We heard from Colonel Drover that air traffic
9 A. Uh-hm.	9 control generally requires a certain amount of
10 MS. FAGAN:	10 time and notice. So who looks after the
11 Q. And a door	11 planning and
12 MR. BURT:	12 MR. BURT:
13 A. Installed.	13 A. This is for a first response mission?
14 MS. FAGAN:	14 MS. FAGAN:
15 Q. A door installed. So the existing door	15 Q. Yes, for a first response mission.
16 MR. BURT:	16 MR. BURT:
17 A. Is taken off.	17 A. Right.
18 MS. FAGAN:	18 MS. FAGAN:
19 Q. Is taken off, and another door put on, and	19 Q. Because not only do you have to fuel and
20 what about fuel? Is it necessarily fuelled or	20 change the seats, that type of thing, you have
21 not fuelled?	21 to get your crew in, but there's a flight
22 MR. BURT:	22 planning component, as I understand it. So
A. Yes, it would be 90 percent of the time you	23 who looks after that and when is that done?
24 would have to adjust your fuel load.	24 MR. BURT:
25 MS. FAGAN:	25 A. Right, that comes right into the dispatcher
Page	Page 44
1 Q. Now you mentioned that you may have to call i	in 1 that's sitting there 24/7 on that standby, and
2 the crew. Generally speaking, where would the	
3 crew be, and is there a difference if it's day	3 running. Again it's seamless in that regard.
4 time or night time, or if you're flying or not	4 The call comes in, they have the emergency
5 flying? Where are you crew?	5 response manual, and again we have that
6 MR. BURT:	6 exhibit here too, if necessary.
7 A. We don't differentiate day time/night time.	7 MS. FAGAN:
8 Our posture is the same, one hour day, one	8 Q. Yes.
9 hour night. Our crew are always by hire where	
10 they live are within a maximum of 30 minutes	• •
11 from the facility, and whether they're in some	11 who to call, when to call, what numbers to
12 cases on site during the day or off site	12 call, and the sequence that's involved, and as
13 during night, and in some cases they may be at	-
14 home on standby as well, but again these are	14 RCC, the Rescue Coordination Centre, we will
<ul><li>dedicated crew, that's what they do, and so</li><li>that is a focus right now with this we have</li></ul>	<ul> <li>notify our senior managers, the Director of</li> <li>Flight Operations, Hank and myself, for</li> </ul>
<ul><li>that is a focus right now with this we have</li><li>an enhanced first response capability right</li></ul>	17 example, would be notified, and that's all
17 an enhanced first response capability fight 18 now.	17 done by one notification, it's a blast e-mail
19 MS. FAGAN:	19 that goes out. Automatically with that as
20 Q. We had heard earlier that the co-authority,	20 well even in our hangar, all of our screens
20 Q. We had head cannot that the co-autionty, 21 the OCC Centre, is staffed 24/7.	21 with go to SAR. When a SAR mission comes up,
22 MR. BURT:	22 our engineers will see that, and they'll all
23 A. Correct.	be notified and then we have a sequence of
24 MS. FAGAN:	24 people who are notified long after that. I
25 Q. In that there's someone there 24 hours a day.	25 mean, a long list of people notified during
2. In that there is someone there 2+ notifs a day.	

February 3, 2010 Mul	ti-Page <sup>TM</sup> Offshore Helicopter Safety Inquiry
Page 45	5 Page 47
1 that process.	1 MR. BURT:
2 MS. FAGAN:	2 A. Right.
3 Q. And the seats and the hoist and the door, that	3 MS. FAGAN:
4 all is done by the Maintenance Department, is	4 Q. So would that be one of the one hour wheels up
5 that correct?	5 scenarios?
6 MR. BURT:	6 MR. BURT:
7 A. That's correct, yes.	7 A. Yes.
8 MS. FAGAN:	8 MS. FAGAN:
9 Q. So where are they you said that the SAR	9 Q. And let's say it happens 9 o'clock p.m., 9
10 techs or the rescue specialists, and the SAR	10 p.m. So he's just finished his shift or
11 pilots, the pilots that conduct those SAR	11 whatever and it's now 9 o'clock you get the
12 missions, we'd heard that they're you know,	phone call. So there's people there at Cougar
13 you have a group that are specialized or able	to deal with the seats and the reconfigure,
14 to do that.	14 you know, the aircraft.
15 MR. BURT:	15 MR. BURT:
16 A. Yes.	16 A. Yes.
17 MS. FAGAN:	17 MS. FAGAN:
18 Q. They're within 30 minutes. What about the	18 Q. There's someone there to take the phone call,
19 maintenance people who have to reconfigure the	19 there's someone there to plan the flight?
20 seats?	20 MR. BURT:
21 MR. BURT:	21 A. Uh-hm.
A. Well, we have maintenance people at the	22 MS. FAGAN:
23 facility 24/7 as well.	23 Q. And the rescue specialists and the pilot would
24 MS. FAGAN:	have to be within 30 minutes?
25 Q. Okay.	25 MR. BURT:
Page 46	5 Page 48
1 MR. BURT:	A. Right, and, of course, there's a little bit of
2 A. As a matter of fact, their main activity is	2 a nuance here too because at AOMS is the
3 during the night time, so you'll see we	3 contracted party that handles the medical
4 have a fairly large complement of maintenance	4 evaluation of somebody offshore.
5 staff and we then have an active staff that	5 MS. FAGAN:
6 are dispatching aircraft. Maintenance people,	6 Q. Yes.
<ul> <li>7 I mean, to use a better word, maintenance are</li> </ul>	7 MR. BURT:
8 seeing aircraft off and seeing aircraft back,	8 A. So in parallel, they're engaged as the primary
<ul><li>as well as the day time support staff. So</li></ul>	9 contact, the status of this person, how are
10 some of these functions are not all	10 they doing and the health is determined, and
11 maintenance functions, like, bringing chairs	11 then they call the medevac. Then we get
12 in and bringing equipment out. What happens	12 involved as the transporter of the specialized
13 in our facility, it's all hands on deck when	13 medical crew from AOMS, not our people. It
14 that happens.	14 would be a doctor or a nurse that's assessed
15 MS. FAGAN:	15 to go with that flight. Our rescue
16 Q. So from a timing perspective, if you receive a	16 specialists will provide the cabin attendant
17 the first area that I'm interested in	and the security in the back and complement
18 covering is a medevac, for example.	18 the medical crew.
19 MR. BURT:	19 MS. FAGAN:
20 A. Sure.	20 Q. So who just is a give it to me again, the
21 MS. FAGAN:	20 Q. So who just is a give it to me again, the 21 medical?
22 Q. So you get a call from a rig that says, I hate	22 MR. BURT:
23 to pick on John Smith, but let's just say John	23 A. I'm sorry, Atlantic Offshore Medical Services.
24 Smith is having a heart attack or we think	24 MS. FAGAN:
<ul> <li>24 Similar is having a heart attack of we diffic</li> <li>25 he's having a heart attach, we need a medevac.</li> </ul>	25 Q. Atlantic Offshore Medical, okay.
2. The sharing a near attach, we need a medevae.	2. Z. Multice Orishore friedicul, okuy.

February 3, 2010	Multi-Pa	ge <sup>™</sup> Offshore Helicopter Safety Inquiry
Pa	ge 49	Page 51
1 MR. BURT:	1	Q. Or a nurse, in order to attend to the worker
2 A. Yes.	2	who's having the heart attack?
3 MS. FAGAN:	3 1	MR. BURT:
4 Q. All these acronyms. I knew there was	4	A. Correct, and, of course, you know, we have a
5 Atlantic, I knew there was medical in there.	5	contract a literal contract that we keep
6 MR. BURT:	6	our obligations here regardless of how long
7 A. Yes.	7	they are, but we are ready and in position to
8 MS. FAGAN:	8	launch at any point. Then they do show up
9 Q. This is, as I understand it, a group of	9	when they're ready to go, and when they've
10 doctors who are in St. John's who are	10	dealt with the situation with the individual
11 contracted to provided medical consultation	11	offshore to make sure that they have the
12 services and medical services	12	proper people and equipment on board to effect
13 MR. BURT:	13	their part of the mission.
14 A. Directly to the offshore operators.	14 1	MS. FAGAN:
15 MS. FAGAN:	15	Q. Okay, so they may have to organize themselves
16 Q. Directly to the offshore?	16	in that they may have some preparation, the
17 MR. BURT:	17	doctor may have some preparation to do in
18 A. Correct. So we operate in parallel with them.	. 18	order to be prepared for that particular
19 They actually have some of their equipment	t 19	medical emergency?
20 right at our facility ready on standby, even	20 1	MR. BURT:
21 in coolers ready to go to to keep a very	21	A. And in most cases, they quite often do, I
close eye on the time, the response time.	22	think. That is the case, it's quite a
23 MS. FAGAN:	23	logistics coordination to be prepared. Once
24 Q. So is it possible or is it normal that either	24	you go, everything else is back at home, so we
25 a doctor or a nurse from Atlantic Medical	25	also do a very quick brief with our cabin
	ge 50	Page 52
1 would go with the medevac?	1	staff so that we're operating as one crew once
2 MR. BURT:	2	they arrive. So we've known them for quite a
3 A. Absolutely, yeah, and that sometimes is the	3	few years, it's a very good relationship. In
4 constraint. We're quite often ready earlier,	4	fact, one of our lead search and rescue
5 but we're not the main thing here, it's the	5	technicians used to work for them, so we have
6 security of the individual offshore, making	6	a lot of good connections with them.
7 sure that they have the proper equipment and		MS. FAGAN:
8 people to serve that. So we do wait for that	8	Q. Thank you. I don't think anyone has mentioned
9 person to come out and that is our	9	the fact that on a medical evacuation it
10 sometimes the long pole in the tent for the	10	sounds very basic, but you need the doctor or
11 mission.	11	the nurse.
12 MS. FAGAN:		MR. BURT:
13 Q. So when you line all this up, something else	13	A. It is a bit of a dance, and it's a nice
14 that has to get to Cougar Helicopters is the	14	orchestrated - it flows quite well, but
15 doctor or the nurse?	15	there's a lot of detail to effect a very
16 MR. BURT:	16	effective medical evacuation, and again you
17 A. Correct.	17	have to be there timely, but you have to be
18 MS. FAGAN:	18	there in a very capable fashion as well.
19 Q. Okay, so not only does the pilots have to com		MS. FAGAN:
20 in and the rescue specialists or the	20	Q. Okay. We have a slide and we'll go back to
21 attendants, the Cougar people, we also have to		another couple of scenarios, but perhaps
<ul><li>22 have a physician?</li><li>23 MR. BURT:</li></ul>	22 23	before we do that if you could go to slide 60, and I'd like you to deal a little bit with the
23 MR. BURT: 24 A. Right.	23 24	rescue specialists that you have and the
25 MS. FAGAN:	24 25	training for the rescue specialists. We heard
	2.5	training for the rescue specialists. We heald

February 3, 2010	Multi-Page	<b>Offshore Helicopter Safety Inquiry</b>
I	Page 53	Page 55
1 in the video that the majority of the rescue	1	deep knowledge base of those people that come
2 specialists are ex-military. Do you have a		and how we train them. Even though he's our
3 breakdown I can see from the slide it's 1		Director of Safety and Quality, we always have
4 So do you have a breakdown of the backgr	round 4	this each a nice operational background.
5 for the 12 rescue specialists that Cougar	5	So if I could, I'll let Rick do that.
6 currently employ?		FAGAN:
7 MR. BURT:	7 0	Q. Okay.
8 A. You mean where they come from?		. BANKS:
9 MS. FAGAN:	9 /	A. Sure, Rick. First of all, I'd like to just
10 Q. Where they come from.	10	back up a little bit here. In saying that we
11 MR. BURT:	11	have the 12 full time rescue specialists, you
12 A. Yeah. As Ian mentioned on the video, we l		know, you must understand that these
13 a we do lean heavily to hire from the ex-	- 13	individuals while quite competent and capable,
14 military. This is from the military. It's	14	they retire after 20 years, but the majority
a very capable group of people that they ha	ve 15	started the military when they were 18, so
16 in the military, their training is quite	16	we're getting them at 38 years old, fully
17 extensive, the background is absolutely		trained, senior rank individuals with more
18 incredible. They do come to us after a long	•	experience than just about any rescue
19 career, in many cases after retirement, after		specialist in the world, you know, a combined
20 20 years, and we draw upon that quite heav	-	effect if we take 8 of the 12, 20 years,
21 So 70 percent of the people we hire typical	-	we're looking at 160 years experience. I
22 come from that background.	22	mean, that is vital and not seen in the
23 MS. FAGAN:	23	civilian agencies. Again, you know, we could
24 Q. And the other specialists, what would you		also add up the missions or the rescues that
25 looking for, do some of those come wit	h 25	have taken place through all these
	Page 54	Page 56
1 specialized skills?	1	individuals, and it's quite capable to say
2 MR. BURT:	2	that we're looking at 800 missions completed,
3 A. Yes, we have some that come from param		rescue missions. That's pretty well unheard
4 backgrounds, high angle rescue, fire fightin	•	of as well. So we have a topnotch team, and
5 backgrounds, and that also complements		in a search and rescue facet, it's team work
6 capabilities as well, especially some of the		that counts. These guys, they don't only come
7 medical, the advanced medical as well.	7	with leadership, but they've been involved and
8 MS. FAGAN:	8	engaged in all the training through
9 Q. What do you do with you hire them, they	-	specialized schools, as well down in the
10 come with a certain set of skills. Once they		States with para-rescue units, cross border
11 come in through the door, we've heard		into Europe and had training with those guys,
12 yesterday about how you train and deal w		and worked in our own search and rescue
13 the various specialists in each department.	13	schools training younger search and rescue
14 MR. BURT:	14	specialists. So, you know, it's quite a
15 A. Right.	15	complement. Our air crew up front, many of
16 MS. FAGAN:	16	them as well are from the military background
17 Q. For example, the pilots, or the aircraft	17	of search and rescue. The coordination, the
18 maintenance engineers. What happens whe		communications, the "have seen it before,
19 hire a rescue specialist?	19	here's things to be looking out for", the risk
20 MR. BURT:	20	factors in flight, it's just a well
A. I think this would be a good opportunity -		complemented group, with many having a lot of
22 we've got a 22 year veteran of the Canadi		east coast experience with the Atlantic Ocean,
23 Forces right here on our panel, and I'd like		which is a pretty hazardous place to play
to ask Mr. Banks to speak to that, if we	24	search and rescue, as well as the Pacific.
could, because I think he speaks from a ve	ry 25	So, you know, the borders are not just you

Febru	uary 3, 2010	Multi	-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
		Page 57		Page 59
1	know, we have this team put together, this is		1	aircraft, and working up scenarios of what the
2	a team of experience essential and competent		2	medical condition may be or what the rescue
3	individuals that'll get the job done. They're		3	condition is going to be, and play it over in
4	a good group of guys, and we have many more	on	4	their mind from plan "A" to plan "B", because
5	line waiting to join our ranks, but, you know,		5	in SAR the plan changes rather quickly. So
6	when those places become available, I've got a		6	they're getting that kind of training
7	list of guys ready to come, and that's a good		7	experience and knocking off their currencies
8	thing for the experience levels. As well as		8	at the same time. They have a set of many
9	just you know, from a whole unit point of		9	currencies to do in a month long time frame.
10	view, there's just a lot of experience there		10	So in between all the training, they're trying
11	that people don't realize that's on our team.		11	to hit everything for that month. So they're
12	The other three just in St. John's we have		12	well capable and trained individuals.
13	others at other bases as well, but just		13 MS.	FAGAN:
14	talking about the 12 here, you know, we've		14 Q	. Thank you. The recurrent training, what is
15	screened them and hired them through		15	recurrent training, I mean, how often is it?
16	paramedicine background, marine rescue as		16	What do you mean by recurrent training or do
17	well, which wasn't included when Rick was		17	you just train all the time?
18	talking, but from that point of view as well,			BANKS:
19	it brings a really nice rounded complement to			. Well and again that's what recurrent is
20	the team, and in the future, you know, just		20	coming down to, but there are certain avenues
21	with the training aspect of what they're		21	there. Again with their EBS training as a
22	doing, it's just an incredible job. If we go		22	recurrent training, so they have to go into
23	in a little further here and talk about		23	the dunker every three years, they have to do
24	operational duties, before being released,		24	their in-house training that's syllabused for
25	they do come in very highly experienced, but		25	them by the team lead. He'll have some
		Page 58		Page 60
1	they still have to go through our parables of	-	1	medical recurrency training to be doing, some
2	training. So it's not like we're doing		2	marine recurrencies. So many of it is monthly
3	anything much different, but we enhance it		3	currencies, but then you'll have some
4	little more because we have the time to pla	-	4	annually. So that's what it means by
5	around with it, and we have the individual	S	5	recurrent.
6	that have brought all this experience. So			FAGAN:
7	previous experience, yes, that's great, but			Okay, thank you. There's a note here as well
8	our training, you know, we have to revert the		8	that says, "Exceeds Transport Canada
9	back to the Cougar way and how we want to		9	standards". Is this an area that's regulated
10	done. So they get all the ground training an		10	by Transport Canada, are there standards? Does Transport Canada have a are they
11 12	flight training before being assigned onboar duties, and there are currencies for that.	u	11 12	involved? I wouldn't say a role, but are they
12	They have a base allotment of 40 hours po	or	12	involved? I wouldn't say a tole, but are they
13	month. That's a good complement of train			BANKS:
14	hours for them. The SAR flight training	ing		. It is listed and they do have information
15	consists, it says here, of search patterns,		15 A 16	regarding what should be in place, but it's
17	land based training, over water training,		17	very minimal because you've got to understand,
18	vessel training, and night training. When yo		18	I believe, we're pretty well the only ones
19	take that and look at how they achieve that		19	doing in the civilian world, so it's Class D
20	when a training day occurs, the crew will co		20	they call it which is, you know, a
20	in, they'll pick up a simulated mission,		20	certification, I guess, that we must hold, but
22	they'll work that mission so that it can		22	at the same time they do have a header or
23	entail a bunch of these things to actually go		23	rescue specialists, but it ends at about that
24	out, find a vessel, first of all doing the		24	stage. It doesn't really go into what kind of
25	search patterns while talking inside the		25	training they must have or anything like that.

February 3, 2010	Aulti-Pa	ge <sup>TM</sup> Offshore Helicopter Safety Inquiry
Pag	ge 61	Page 63
1 MR. BURT:	1	example, we have a Stokes litter, which is a
2 A. That's correct, yeah, there is no SAR standard	2	litter that will raise somebody up that, you
3 per se, but there is a standard on having	3	know, needs to stay in a horizontal position.
4 loads hung outside an aircraft and that's	4	We have rescue baskets so we can effect a
5 where Transport Canada will have their say in	ı 5	rescue from the water. You'll see that
6 it. For example, anything that is on our	6	there's a SKAD kit, and that stands for Sea
7 hoist attached to it, whether it be the rescue	7	Kit Air Dropable. Now this is a unique piece
8 equipment, the collar, litter kit or anything,	8	of a kit. It comes from the military linage
9 that all has to be certified in the chain. So	9	and what it has is a life raft attached to it,
10 that's one part that they do regulate.	10	a length of rope, a survival kit, and another
11 MS. FAGAN:	11	life raft at the end of another rope. So
12 Q. So the equipment itself, such as the hoist,	12	that's dropped from the aircraft to people in
13 and the weights, that type the equipment	13	the water. So you'll have a life raft, a rope
14 must be certified, but would it be fair to say	14	so they can grab it, there's a survival kit
15 the combination of how much equipment or w		and the end of that there's another life raft.
16 the components of a SAR	16	So that's a piece of a kit that we have
17 MR. BURT:	17	available. Then you'll see the pieces of
18 A. They don't stipulate that. There's no	18	equipment that the rescue specialists use to
19 standard for that in Canada.	19	effect rescues. We do have obviously the
20 MS. FAGAN:	20	search light, we have night vision goggles in
21 Q. Okay, well, I believe the next slide is the	21	the back of the aircraft that the search and
22 equipment that Cougar Helicopters has	22	rescue technicians, the rescue specialists,
23 available or uses. It's that slide 61.	23	use to search in night time operations. So
24 MR. BURT:	24	it's a very effective kit that we have in the
25 A. Right.	25	back to complete our mission.
-	ge 62	Page 64
1 MS. FAGAN:		MS. FAGAN:
2 Q. And I believe Mr. Burt is going to cover this	2	Q. Now the list itself is not likely to be seen
3 slide.	3	by the because the PowerPoint is not likely
4 MR. BURT:	4	showing, but it is part of the exhibit, so if
5 A. Yes, sure.	5	anybody is interested in seeing the list
6 MS. FAGAN:	6	afterwards, they can always look at the
7 Q. You're all capable, so you just take whichever		exhibit and it's 61 of the PowerPoint. This
8 slide is best suited, and Mr. Burt, can you go	8	is the equipment. Can you tell me how this
9 through what's on this list and explain the	9	equipment is located on the aircraft.
<ul><li>10 significance of the highlighted portions?</li><li>11 MR. BURT:</li></ul>		MR. BURT: A. Sure.
	11	A. Sure. MS. FAGAN:
12 A. Sure. First of all, where we do develop our 13 list initially, we are we do have a	12 1	Q. And I believe the next slide is how the
requirement in our scope of work with all of	13	helicopter is configured.
15 our three contractors, or I should say, the		MR. BURT:
16 companies that we work for, the oil companies		A. Sure.
We are compliant with that. In some cases we		MS. FAGAN:
18 do have fairly extensive stores of rescue	18	Q. And perhaps you can take us to you know,
19 equipment, so we'll even bring that whole	19	there's various locations on the helicopter.
20 stores together and offer it whether it's on	20	Explain what's located where, and you can
that list by the companies or not. So that's	20	reference back to the equipment as to where
the nature of why some is yellow and some is		some of this equipment would be.
not in yellow. The equipment that we do have		MR. BURT:
24 on board is basically designed to effect	23	A. Okay, and I'll even give you a little bit of
25 for us to complete our scope of work. For	25	background which, I think, is good context.
12. Ior us to complete our scope of work. Tor	25	Such Bround winder, 1 mink, 15 good context.

Febru	ary 3, 2010	Multi	-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
	Р	age 65		Page 67
1	We have an area of our hangar, first response	e	1	point out just that FLIR system is not
2	area. That area is dedicated to all this		2	standard here. We do use FLIR in the Gulf of
3	rescue equipment. It's outlined in red, it is		3	Mexico, Alaska, and the North West
4	a secure area. All of this equipment is		4	Territories.
5	staged on rolling tables for quick deploymen	t,	5 COM	MISSIONER:
6	so every piece of kit that I just talked to		6 Q	. We've only got a couple of minutes before we
7	you about is virtually there. There may be		7	take the break, but if you wouldn't mind
8	some medical equipment in coolers, but for t	he	8	explaining the FLIR system to us.
9	most part, it's all there. Even our hoist,		9 MR.	BURT:
10	which we do install, is on a specialized hoist		10 A	. Sure.
11	rack which can be rolled out and used to affir	x	11 COM	MISSIONER:
12	to the aircraft in as quick a fashion as		12 Q	. So we know what it does.
13	possible. So all this is designed for as		13 MR.	BURT:
14	quick as possible a quick response. So		14 A	. Right. The forward looking infrared radar is
15	that station is where all this equipment come	s	15	a piece of kit that actually examines the
16	out. It goes into the aircraft, and as you		16	difference between temperature differentials.
17	see here, we do have the aircraft equipped		17	So if you have a body in the water, even the
18	with now a dual hoist and this is a new piece		18	most minute difference in temperature and
19	of the kit that we put in in the last year.		19	thermal difference you see it sometime
20	It is an international standard best		20	where somebody would shoot a camera at a house
21	practices, so we now have a dual hoist, and		21	and see where it's leaking heat. It does the
22	the obvious benefit here is if we're out		22	same thing. For example, somebody in the
23	effecting a mission, a critical mission, and		23	water, even in an immersion suit with the head
24	we have a cable that shags or if we have a		24	out of the water, will be picked up quite
25	hoist that breaks, we do have that second		25	significantly actually. A life raft, a life
	Р	age 66		Page 68
1	hoist to complete and effect our mission. So		1	boat, are quite detectable by this FLIR
2	that's also very good news that we've		2	system. The system that we have not only has
3	implemented that already. Additionally, you'	'11	3	the device outside, but we have a FLIR
4	see things on the aircraft like the forward		4	station. So we have an observer sitting at a
5	looking infrared radar. Now while we don'	t	5	station looking at a TV screen that can sit in
6	have that here, it is part of a kit elsewhere		6	the back of the aircraft and pan throughout a
7	where we fly and that's why it's represented	l	7	large portion of our area of search. So not
8	here as number five. So I just wanted to		8	only are we doing a visual search, but we're
9	I'm sorry, number three, just so we can		9	using another wavelength to search.
10	comment on that. The other kit that we do			IMISSIONER:
11	have is a multi-bed stretcher system. We hav	e		But this is in the Gulf of Mexico?
12	three layers of stretchers that we can put on		12 MR.	
13	board this aircraft. High intensity search			. We're using them in the Gulf of Mexico on our
14	light. You will see that we have our		14	S-61, on our S-92s. It is a kit that we build
15	auxiliary fuel tanks, of course, which do help	)	15	ourselves and we use it in the North West
16	us with the extended range for search and		16	Territories and Alaska. We have found it to
17	rescue missions. The equipment on board th	ne	17	be very effective. It's also now become much
18	aircraft, the search and rescue technicians,		18	a standard in the search and rescue world, and
19	the rescue specialists use, are like the		19	it provides an incredible layer of
20	Stokes litter I talked to you about, and all		20	information.
21	their kits and bags to effect some advanced			IMISSIONER:
22	first aid. Outside of that, we have the			How far ahead can it you know, kilometres,
23	medical kits, the night vision goggles for		23	yards, whatever you'd like.
24	search in the back of the cabin, and items		24 MR.	
25	that are listed here, but again I want to		25 A	. It's about three to five nautical miles

February 3, 2010	Multi-Pa	ge <sup>™</sup> Offshore Helicopter Safety Inquiry
Pa	.ge 69	Page 71
1 effective range.	1	we've started we're onto the second
2 COMMISSIONER:	2	generation. Our S-92s are using a second
3 Q. Three to five nautical miles?	3	generation FLIR from when we initially
4 MR. BURT:	4	started, even our 61s. We have now
5 A. Yes, so it's quite a sweep especially when	5	standardized our fleet so that we have a
6 you're in a general area. If you're in a	6	number of units around and try to keep them
7 general area, you're doing your search	7	standard so they can swap them back and forth.
8 pattern, you know where you are, this is	8	A very capable piece of kit, and I will say
9 something that can actually pull out that	9	that having the station in the back and a
10 temperature differential and it's quite	10	dedicated search individual that sits at this
11 significant with the signals that this can	11	station has full control of the panels, and
12 pick up, the differentials in, like, half a	12	full control of the search mechanism, provides
13 degree. If you have somebody that's half a	13	a focused search capability. We do not put
14 degree in the temperature, it'll come up as a	14	this capability in the cockpit. That's not
15 different colour.	15	what the pilot should be doing. They should
16 COMMISSIONER:	16	be flying the aircraft, so that's a very
17 Q. So you're not using it here because it's not	17	important point, and we build this station and
18 called for in your contract, I presume?	18	we put it into the aircraft as well.
19 MR. BURT:		COMMISSIONER:
20 A. That's correct, yeah.	20	Q. Okay, perhaps we should take the break now.
21 MS. FAGAN:		MS. FAGAN:
22 Q. I was going to say, how much would you have to	22	Q. Yes, thank you.
23 see if it's you've just said it's three	23	(RECESS)
24 nautical miles, three to four nautical miles?		MS. FAGAN:
25 MR. BURT:	25	Q. Just before the break, we were discussing
	.ge 70	Page 72
1 A. Three to five nautical miles.	1	FLIR, which is Forward Looking Infrared, and
2 MS. FAGAN:	2	you had indicated that right now FLIR is not
3 Q. And what could it pick up how big a source		being used here at the St. John's base. Can
4 would it have to say, a human floating in a		FLIR just be installed, I mean, what would be
5 survival suit, I mean, that's what we're	5	the process in order to have FLIR? We talked
6 talking about here.	6	about, you know, the winch and the chairs, the
<ul><li>7 MR. BURT:</li><li>8 A. Right. If you have somebody floating, of</li></ul>	7	seats and all that. I mean, can we just pop in a FLIR and
8 A. Right. If you have somebody floating, of 9 course, you know the head is where a lot of	-	MR. BURT:
10 the heat comes from. So somebody in an		A. The FLIR installation is a little more
11 immersion suit in that capacity somewhere		complicated, and again we do have that on
12 around two to three miles, you would have a		different operations, but it's normally
13 significant target. Now sea state, if it was	a 12 13	associated with a dedicated operation. It
14 a high sea state, like anything else, it also	13	takes about between an hour to two hours to
relies mostly on line of site, so sea state	15	install the FLIR operation because panels have
16 would be a little bit tougher, but on an	16	to be dropped, the what they call the FLIR
17 average sea state, it can pick something up	17	ball, the camera has to be installed, and on
18 within that two miles, two to three miles,	18	top of that, of course, the back end mission
<ul><li>somebody in the water by themselves.</li></ul>	10	specialist station has to be installed,
20 COMMISSIONER:	20	connected, and full integrated into the
21 Q. How long has this thing been in use?	20	system. So it just it takes quite a while
22 MR. BURT:	21	to do that, actually.
23 A. FLIR has been in use a number of years, but it		MS. FAGAN:
24 does like, night vision goggles has	24	Q. Okay. You have included in your you have
25 generations of technology, and, in fact, since		included in the exhibits a number of pamphlets
		r

February 3, 2010	Multi-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
F	Page 73	Page 75
1 and this particular slide, slide 62, I believe	1	that are especially built that open in a very
2 this comes out of your search and rescue	2	quick fashion, a specialized mega-door. So we
3 brochure.	3	get very specific about how we handle a
4 MR. BURT:	4	dedicated SAR service.
5 A. Yes, it's right out of our standard brochure.	5 COM	MISSIONER:
6 That's why I had to explain the FLIR in this	6 Q.	So that's why in the North Sea, for instance,
7 case because it's more of a standard part	7	they can have wheels up in fifteen minutes?
8 of our full kit.	8 MR. E	BURT:
9 MS. FAGAN:	9 A.	Absolutely.
10 Q. Okay, and so in these, if you advertise it as	10 COM	MISSIONER:
being part of a standard kit, then is it	11 Q.	They're ready to go.
12 installed or is it swapped permanently	12 MR. E	BURT:
13 installed or is it swapped in and out? I	13 A.	You literally have to be ready to press
14 mean, if it's going to take more than an hou		starters. When you talk about fifteen
to install, would it be fair to say you would	15	minutes, you got to start an aircraft up,
16 not be able to manage the wheels up within		that's three minutes, and to be wheels
17 hour, if in addition to the winch and seats	17	airborne, effectively that once you push that
18 you had to install this device?	18	button somebody is hitting the door and
19 MR. BURT:	19	opening the door within ten or fifteen
20 A. The only application of FLIR that we have i	s 20	seconds. We're drilled on that, and to be
21 in dedicated SAR dedicated aircraft that	21	honest with you, when we first started, it was
22 are preconfigured for SAR.	22	like a I think we had to go through an
23 MS. FAGAN:	23	education process that it's a challenge to
24 Q. Okay.	24	meet those 20 minute dispatch times every
25 MR. BURT:	25	single time. We found that even having our
F	Page 74	Page 76
1 A. And this pamphlet here speaks of our gros	e	crew across the airfield at their
2 capabilities, this is what we're capable of,		accommodations unit sometimes can be a
3 full capability.	3	challenge, so we had to make some
4 COMMISSIONER:	4	accommodations to have some of our crew at the
5 Q. That's what I assumed, that this would be	a 5	hangar. So it was a learning experience we've
<ul><li>6 plane or an aircraft that would do SAR?</li></ul>	6	gone through in the last three years.
7 MR. BURT:	-	MISSIONER:
8 A. Correct, correct.		If I may, I'm obviously interested in this.
9 MS. FAGAN:	9	What about weather, let's say there's a
10 Q. Now you had mentioned a dedicated serv		dedicated and fitted out helicopter ready to
11 earlier, that what you provide here is a	11	go and all things being equal, in fifteen or
12 dedicated service. Is there a difference	12	twenty minutes - what about weather?
13 between a dedicated service and a dedicated		Supposing it's freezing rain, you can't
14 aircraft?	14 MR. E	
15 MR. BURT:		That's correct.
16 A. Yes, and, of course, that's how you effect th		MISSIONER:
17 difference in the response times. We have		You can't fly.
18 dedicated services in the Gulf of Mexico, a	-	•
19 we talked about, in Alaska, and in the Nort		There are limits.
20 West Territories. So we're quite familiar		MISSIONER:
21 with what it takes to do that. These aircraft		Yeah, what happens, does it build up on the
22 are pre-configured, pre-fuelled, pre-flight	22	fuselage, or on the rotors?
23 planned, and even staged in a manner with		-
tug, a towing unit attached and ready to go		Well, freezing rain, number one, I'll just say
25 In some places, we even have our hangar de		it because it's the proper thing to say, we
		r-r0.000,

February 3, 2010	Multi-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
	age 77	Page 79
1 can't fly in freezing rain, but the risk is	1 Q. O	kay.
2 that the build up on the rotor system is too	2 MR. BUR	RT:
3 fast of a rate to shed by any means of a rote	r 3 A. B	ecause again it's a capability we have here,
4 ice protection system, and the accretion tin	e 4 ar	nd remember it's done at the same place, it's
5 and the water droplet is the specific reason	5 do	one here in St. John's for the States, it's
6 why the differentiation between freezin	6 da	one here for Alaska. That's the beauty of
7 precipitation is the water droplet size.	7 de	bing it here. That capability is here and
8 COMMISSIONER:	8 th	at is extended to our capabilities and
9 Q. Yeah.		ervice in St. John's.
10 MR. BURT:	10 MS. FAG	AN:
11 A. And it's just that the build up is so fast,	11 Q. So	o it's the we heard earlier that the St.
12 the accretion is so fast that you cannot	-	ohn's office is the location where the
13 actually mitigate it with your de-ice system		peration is it Galliano?
14 COMMISSIONER:	14 MR. BUR	
15 Q. I see, okay, and what about other weather		es, in Louisiana.
16 conditions? Wind wouldn't affect it, I don		
17 think?		Louisiana. That that's it's the St.
18 MR. BURT:	-	bhn's office here that is monitoring the
19 A. Wind shouldn't affect it. Again we're prep		ctivity in Louisiana, is that correct?
20 and ready to go for that. We have special	20 MR. BUR	-
21 for example, start up grates that we'll put		hat's correct.
down. If there's ice on the ramp, we put	21 A. 11 22 MS. FAG	
<ul><li>these grates down, so we manage that busin</li><li>to make sure that we can be airborne. We</li></ul>		o this green, yellow, red forecasting is done ere for both St. John's and Louisiana?
25 have special low weather operating criteria		
	age 78	Page 80
1 We have capability of having the addition		or both locations.
2 fuel, and one thing that is, I think, quite	2 MS. FAG	
3 material, that our dispatch department does		nd Alaska?
4 real time flight plan, they actually forecast.	4 MR. BUR	
5 So they'll actually have our area listed and		herever we're operating and contract for 24/7
6 coded in green or yellow or red. So any tir		ervice, yeah, and again building that
7 we call they'll know that one area is green		tuational awareness, if we want to know if
8 Green means the weather is suitable for		e aircraft is in the hanger, we have cameras
9 immediate dispatch. We're not reactive, we		n the ramp in Alaska, Barrow, Alaska, in the
10 proactive. So that served us well, and all		iddle of nowhere, but you have to have that
11 the time they almost have a dynamic ability		tuational awareness to manage your business.
12 say our flight planning is done, it's done,		o that's why we do employ closed circuit TVs
13 it's green, green, green, yellow, and they'll		n the ramps to make sure that the aircraft is
14 be able to say right away, it's yellow over		eing towed out on time, the refuellers are
15 here, so you may have to carry more fuel.		nowing up, so we have to integrate our
16 we have a status that we keep all the time.		fuelling people into this too as well. If
17 COMMISSIONER:		e have to adjust our load, they're on site,
18 Q. Okay, thank you.	18 th	ey're briefed, they're part of our system.
19 MS. FAGAN:	19 So	o it's quite an integrated system.
20 Q. This status for your dispatch, is that here in	20 MS. FAG	AN:
21 St. John's or is that in some of the areas	21 Q. So	o to be just to summarize or to be clear,
22 that you spoke about where you offer the S	.R? 22 th	e configuration here with the FLIR is your
23 MR. BURT:		andard configuration for SAR that you offer
A. We do keep that status here as well.		other locations. With the exception of the
25 MS. FAGAN:	25 FI	LIR, is the rest of the items on this

February 3, 2010	Multi-Page <sup>TM</sup> Offshore Helicopter Safety Inquiry
Р	age 81 Page 83
1 configuration consistent with how we're	•
2 configured in St. John's base?	2 MS. FAGAN:
3 MR. BURT:	3 Q. Okay. So you've named four places.
4 A. Yes.	4 MR. BURT:
5 MS. FAGAN:	5 A. Uh-hm.
6 Q. Okay.	6 MS. FAGAN:
7 MR. BURT:	7 Q. Are the four places all over water?
8 A. That's correct.	8 MR. BURT:
9 MS. FAGAN:	9 A. Yes.
10 Q. And could you please just name the locatio	ns 10 MS. FAGAN:
11 where you offer SAR service in addition to S	
12 John's base, what are the other locations?	12 aircraft for SAR?
13 MR. BURT:	13 MR. BURT:
14 A. Right. We offer the service in the Gulf of	14 A. The Louisiana, Barrow, Tuktoyaktuk, and
15 Mexico, in Louisiana, in a place called	15 Greenland are all dedicated SAR.
16 Galliano.	16 MS. FAGAN:
17 MS. FAGAN:	17 Q. Are all aircraft 92s, or is it a mix between
18 Q. And who is that for?	18 92s and 61s?
19 MR. BURT:	19 MR. BURT:
20 A. That's for the oil industry. Our customers	20 A. It's a mix between 92s and 61s.
21 there are BP, Shell, and Statoil.	21 MS. FAGAN:
22 MS. FAGAN:	22 Q. Okay, but either a 92 or a 61 is preconfigured
23 Q. What other locations?	23 for SAR?
24 MR. BURT:	24 MR. BURT:
25 A. Again seasonally again this year in Barro	
	age 82 Page 84
1 Alaska, for Shell.	1 MS. FAGAN:
2 MS. FAGAN:	2 Q. What is the response time in each of the four
3 Q. And is that oil and gas?	3 locations?
4 MR. BURT:	4 MR. BURT:
5 A. Yes, that's oil and gas offshore. This year	5 A. I'm not I can't if memory serves me,
6 we also did Tuktoyaktuk in the North We	
7 Territories, and we did that for BP. We just	7 Mexico, and 30 minutes in the other two
8 were awarded a contract yesterday and we	
9 providing that service for Cairn Energy in	9 MS. FAGAN:
10 Greenland. We have two dedicated I show	
11 say three aircraft going to Greenland for	11 MR. BURT:
12 July. All of them will have the capability of	12 A. I'm sorry, 20 minutes is again it's a
12 July: All of ulerit with have the capability of 13 full search and rescue. Two 92s will have	
14 auto hover, they will have FLIR, high	14 dedicated SAR, so that explains why it's 20
15 intensity search lights, and one of those	15 minutes. We're operating out of third party
16 aircraft will be dedicated at all times for	hangers elsewhere. That's why it's 30.
17 our Greenland operation.	17 MS. FAGAN:
18 MS. FAGAN:	18 Q. Okay. So what is in place let's go with
19 Q. The toll for Greenland would be three?	19 the 30 minutes and we'll work our way down to
20 MR. BURT:	the 20 minutes. What is in place or needs to
20 MR. BURT: 21 A. Three aircraft.	20 the 20 minutes. What is in place of needs to 21 be in place to achieve 30 minutes wheels up?
22 MS. FAGAN:	22 MR. BURT:
22 MS. FAGAN: 23 Q. Now the Louisiana, is that over water or is	23 A. So a preconfigured aircraft, a pre-fuelled
25 Q. Now the Louisiana, is that over water of is 24 that land?	23 A. So a preconfigured anciant, a pre-fuence 24 aircraft, and a briefing with your dispatch
25 MR. BURT:	24 ancient, and a bitering with your dispatch 25 department to understand the scope of

February 3, 2010	Multi-Pa	age <sup>™</sup> Offshore Helicopter Safety Inquiry
Р	age 85	Page 87
1 deliverable service, co-located crews, and an	n   1	Galliano and the other three?
2 ability for a 24/7 response. In other words,	2	MR. BURT:
3 a day crew and a night crew. So we do have	ve 3	
4 two sets of crews, two full sets of crews in	4	8
5 these locations, as we do here in St. John's.	5	
6 The difference is that they are co-located	6	$\mathbf{J}$
7 with the facility, like a fire hall.	7	<b>r r r r y</b> , <b>s</b>
8 MS. FAGAN:	8	
9 Q. Okay. So we'd heard earlier that in St.		MS. FAGAN:
10 John's the crew can be, say, off base, within		6
11 a half hour of the hanger.	11	1
12 MR. BURT:	12	1
13 A. Uh-hm. 14 MS. FAGAN:	13	
	14	MR. BURT: A. Uh-hm.
<ul> <li>Q. In the three locations that are providing 30</li> <li>minutes, they physically have to be on site,</li> </ul>	-	A. On-hin. MS. FAGAN:
17 as you said, like a fire hall?	10	
18 MR. BURT:	17	
19 A. Correct.		MR. BURT:
20 MS. FAGAN:	20	
21 Q. Okay. What's - now there's a difference, I		-
take it, between achieving 30 and 20 minute		
23 So can you explain I think there's a	23	
further, I guess, sophistication or	24	
25 MR. BURT:	25	
р	age 86	Page 88
1 A. There's further realities.	1	
2 MS. FAGAN:	2	
3 Q. Okay.	3	
4 MR. BURT:	4	an alert, and that alert spins in a whole
5 A. The reality is that when we operate in the	5	series of contemporaneous actions, and that
6 three other locations outside of Galliano,	6	means that maintenance will have the aircraft
7 they're not our facilities, they're not our	7	towed out, the pilots will talk to dispatch
8 hangars, they're not dedicated towards it, an	nd 8	and grab their flight planning, and they'll
9 those jobs are seasonal jobs. So, you know	, 9	literally head to the aircraft and get ready
10 you don't have the ability to say this is our	10	
11 home, this is our house, this is my property,		
12 I control everything here. So in some cases		
13 the refueller might be a little slower, and we		1
14 just can't guarantee the 20 minute response		
15 time in some of these locations. In the Gulf		
16 of Mexico, we can because we can control th		5
17 We control the fuel, we control the facility,	17	
18 we control the people.	18	
19 MS. FAGAN:	19	1
20 Q. And that hangar is your own hangar?	20	
21 MR. BURT:	21	
22 A. Correct.	22	
23 MS. FAGAN:	23	
24 Q. Is there anything special with respect to the	24	
25 doors or the hangar itself between the one in	n 25	canned flights. In other words, we call a

February 3, 2010	Multi-Pa	age	Offshore Helicopter Safety Inquiry
	Page 89		Page 91
1 rescue flight, air traffic control knows that	1	Q.	We've also heard that the European Aviation
2 if it's rescue 493 or rescue 453, whatever w	ve 2		Safety Agency is now the organization that
3 designate, then they know, okay, this is a	. 3		regulates Canadian operators?
4 search and rescue mission and they have t	top 4	MR. B	URT:
5 priority. So it's prior it's this	5	А.	That's correct.
6 preplanning which is key to everything, a	nd 6	MS. FA	AGAN:
7 folks in our fire departments they've been	n 7	Q.	So, I take it, you can't take advantage of the
8 doing this for years, and for us it's been a	8		European certification because you must wait
9 very interesting learning process over the	9		for Transport Canada?
10 last three to five years.	10	MR. B	
11 MS. FAGAN:	11	А.	That's correct. The European I mean, EASA
12 Q. The auto-hover is on these aircraft as well			in Europe are very sophisticated search and
13 not?	13		rescue entity. They have a search and rescue
14 MR. BURT:	14		standard, a SAR standard, in their CAA. It's
15 A. We don't have auto-hover on any of o			very well thought out, they've been doing it
16 aircraft at this time.	16		for years. Companies like Bristow have been
17 MS. FAGAN:	17		doing it, companies like CHC Europe have been
18 Q. Okay.	18		doing it, Helicopter Service in Norway have
19 MR. BURT:	19		been doing it. So they've been quite
20 A. We have provisions for auto-hover. The S			sophisticated in that capability and the
21 is the only aircraft in our fleet that has	21		regulator has been recognized and developed
22 provisions for auto-hover, and as we spea			the standard for that.
23 they're just finalizing the certification of	_	MS. FA	
the auto-hover in the FAA in the States, and		Q.	Okay. We've heard from Colonel Drover on auto-hover as to what it allows or enables a
25 of course, we have an interest in that becau			
	Page 90		Page 92
			helicopter to do. Could you just explain what auto-hover would allow Cougar Helicopters to
<ul> <li>certification for the FAA certification of the</li> <li>auto-hover in the 92 is April/May this yea</li> </ul>			do? We've heard that you do do hoisting at
			night, but it must be in a well lit area. How
<ul> <li>a Transport Canada is tracking that, and we a</li> <li>b tracking it together with them. As soon a</li> </ul>			is auto-hover going to improve your
6 it's certified in the States, then we expect a			capabilities?
7 30 to 45 day review process, what they call		MR. B	-
8 familiarization process in Canada, and ther			Well, it's important to understand that while
9 follow on certification in Canada.	9	71.	we can fly in instrument conditions with a
10 MS. FAGAN:	10		helicopter, it has a limitation on what you
11 Q. Do you know if the auto-hover is currently			can do on instruments. In fact, there is a
12 any S-92s in the world?	12		minimum instrument speed and every helicopter
13 MR. BURT:	13		that flies in instruments has a minimum
14 A. They're using the auto-hover system and h			instrument speed, and the S-92, I believe
been for almost three years in the North Se			their minimum speed is 55 knots. The Puma
16 The UK search and rescue government com			will have a different speed. In that case,
17 is using three S-92s in the search and rescu			it's 65 and 70, respectively, but it's
role with auto-hover on the 92s. It's	18		actually a minimum speed with the basic
19 approved by EASA.	19		autopilot that the aircraft is certified to
20 MS. FAGAN:	20		fly to. Anything less than that, the aircraft
21 Q. And we've heard that that's the Europe			becomes inherently unstable and you need
22 Aviation Safety Agency.	22		visual acuity with the ground to maintain a
23 MR. BURT:	23		hover and control and a transition to a hover.
A. That's correct.	24		So saying all that, and then throwing that
25 MS. FAGAN:	25		into a condition where you're going over a

Feb	ruary 3, 2010 M	ulti-P	age™	<sup>A</sup> Offshore Helicopter Safety Inquiry
	Page	93		Page 95
1	very poorly lit poor reference environment,	1		flight crew. The flight crew have ultimate
2	such as over water night time, it is almost	2		authority over the aircraft, and what they're
3	impossible, unless you have the proper	3		job to do is to monitor the auto-pilot, not
4	lighting, for a pilot to maintain effective	4		fly the aircraft. It now becomes the job of
5	hover over a spot. You have a drifting	5		monitoring the auto-pilot. It's very similar
6	target. Once you come in over the water, you	6	i	to us when we do precision approaches, we have
7	have your downwash that creates an environment	nt 7		the aircraft flying itself here in St. John's
8	that is confusing and it is unmanageable, and	8		on these approaches, precision approaches, to
9	that's why we don't do that, that aspect of	9	)	the instrument landing system. We monitor the
10	it. Auto-hover uses onboard technology,	10	)	auto-pilot and if anything should vary, then
11	stabilization systems, and there's various	11		we take over. So this is why we talked about
12	things that will make an aircraft hover	12		transitioning to this technology is a very
13	automatically. We have Doppler, we have	13		specific task. We have to go to the
14	onboard inertia laser ring gyros, and the	14		simulator, train these missions, and do it.
15	like. Effectively all they do is they say they	15		So the auto-hover effectively is the kit that
16	know where the aircraft is in space and they	16		will allow us to do extractions of individuals
17	know it very well. The aircraft is that	17		that might be in the water, from a life raft,
18	equipment is certified to assist the pilot and	18		from a life boat, in some cases smaller
19	crew not only in its lateral transition as to	19		vessels, and even if you do have a supply
20	where it is, but also in its vertical, its	20	)	vessel that is somewhat well lit, even if you
21	height. The interesting thing about the auto-	21		could do it manually, the auto-hover would
22	hover, of course, is it has all this	22		obviously add a huge complement to the
23	technology, these modes, these transition	23		stability and the task loading of the crew,
24	modes. It has, for example, a mark on target.	24		and, therefore, an element of risk mitigation.
25	You can fly over a target or a weigh point,			
	Page	94		Page 96
1	press a button, and handsfree the aircraft	1	MS. F	FAGAN:
2	will fly a full circuit, come back around,	2	Q.	You said that you know that the FAA, which is
3	come into wind, and present itself 300 feet	3		the aviation authority in the United States,
4	down wind in a position ready to do a rescue	4		is in the process of certifying auto-hover,
5	all by itself at 100 feet. From that point,	5		doing their investigation, and that you're
6	the aircraft will then come in and effect an	6		anticipating that certification in the spring
7	extraction, and there's also another	7		of this year?
8	significant element that the back end or the	8	MR. I	BURT:
9	rescue specialist has a control pendant that	9	A.	That's correct. We're actually participating
10	has somewhere between 10 and 14 percent	10	)	in that process with Sikorsky, the
11	control authority because he is looking at the	11		manufacturer. So it's our search and rescue
12	rescue situation. While the flight crew is in	12		crews that are actually down there proving the
13	charge of the aircraft, 10 percent of that	13		flight testing missions with the auto-hover
14	authority is given over to the rescue	14		and the hoist integration because the hoist is
15	specialist and he can actually move the	15		an integral part of the auto-hover, and let me
16	aircraft with 10 percent and fine tune that	16	i	explain that. If you are hoisting over the
17	location over the site and effect the rescue	17		water and you have an engine failure over the
18	and complement the flight crew in that rescue	18		water, then all these systems are integrated,
19	mission.	19		you know, so that can you fly away in a proper
1	COMMISSIONER:	20		manner and prove that and make sure that all
21	Q. The fact that he does that does not compromise			these avenues are covered off. So we're
22	the safety of the flight?	22		flight testing and providing all that data
23 N	/R. BURT:	23		with and for the FAA. So it's kind of
24	A. No. It's contemplated, certified, and	24		interesting we have a nice direct hand in that
25	trained, and it's actually a complement to the	25		with our crews and it's actually our rescue

February 3, 2010	Multi-Page <sup>™</sup> Offshore Helicopter Safety Inqu
P	rge 97 Page
1 crews that are helping do that.	1 for Transport Canada?
2 MS. FAGAN:	2 MR. BURT:
3 Q. And Transport Canada, you indicated that you	3 A. It will be by the FAA certification.
4 anticipate they would likely certify within 30	4 MS. FAGAN:
5 to 45 days. Are they involved in this	5 Q. Okay. So that's why they would be able to
6 process, or are they monitoring	6 have the auto-hover ahead of Greenland?
7 MR. BURT:	7 MR. BURT:
8 A. Yes.	8 A. Correct.
9 MS. FAGAN:	9 MS. FAGAN:
10 Q. I mean, how can you say that, what do you know	10 Q. And Greenland would be covered under you
11 about Transport Canada's activities with	11 Transport Canada certification?
12 respect to this certification process?	12 MR. BURT:
13 MR. BURT:	13 A. That's right. We're operating there under a
14 A. We have kept them engaged in the process, and	14 special permit.
15 this is Mr. Gerber's position to keep them	15 MS. FAGAN:
16 engaged in the process, as well as our	16 Q. Now I'd just like to take you back to the
17Director of Maintenance from an aircraft point	17 medical evacuations and the SAR type missions
18 of view, and on top of that Sikorsky, as the	18 that would be conducted here out of the St.
19 manufacturer, has kept them engaged as well.	19 John's base, because we talked about
20 So they're invited to participate and also be	20 reconfiguring the aircraft and putting the
21 aware of different phases of the	21 hoist on the aircraft, and I know that these
22 certification, because again with a bilateral	22 missions are different, a SAR mission is
agreement we have between Canada and the	23 different from a medevac, and would you
24 United States, they have an obligation to	24 clarify for me what needs to be done or what's
25 familiarize these certifications back and	25 different about a SAR versus a medevac? I
Р	Page 98 Page
1 forth. They know they have a customer, a	-
2 Transport Canada would call it in Canada, the	at 2 the crux of the question?
3 has an intent and we've signalled our intent	3 MR. BURT:
4 to use it, and so Transport Canada is acting	4 A. As far as the no, the hoist is not
5 appropriately, and I must say they have bee	
6 doing a great job in serving our industry in	6 As you've heard, we do rely and team with the
7 Canada and being diligent about that. So	7 offshore medical people as well. They are
8 they're quite aware of it and they've been	8 really the leaders in direction when we go and
9 involved in every aspect.	9 almost how we go. So we don't need the hoist,
10 MS. FAGAN:	10 however, we do have our same rescue
11 Q. I take it from all of this discussion that	11 specialist, and as I say, they act as a cabin
12 Cougar has an intention to place the auto-	12 attendant and a security attendant for those
13 hover on its aircraft?	13 staff, those medical staff in the back, but
14 MR. BURT:	14 again the difference is quite clear. If we do
15 A. We will have auto-hover in the aircraft in	15 a medical evacuation flight, there's no need,
16 Greenland operating in July.	16 and we don't contact RCC for those missions.
17 MS. FAGAN:	17 That's an internal service that's required,
18 Q. Okay.	18 that's not a rescue.
19 MR. BURT:	19 MS. FAGAN:
20 A. And I should say in our US operation, ever	20 Q. Okay. So the difference would be if it's a
21 before that.	21 medevac, you need the physician, and you don
22 MS. FAGAN:	22 need the hoist?
23 Q. Okay, because the US is the US operation	23 MR. BURT:
24 going to be governed by the FAA certificatio	
25 or is the US operation going to have to wait	25 MS. FAGAN:

February 3, 2010 Mult	i-Page <sup>™</sup> Offshore Helicopter Safety Inqu	iry
Page 101	Page	103
1 Q. And you don't call JRCC?	1 better words, is that we've had cross meetings	
2 MR. BURT:	2 with these people in Gander. More	
3 A. That's correct.	3 specifically when the S-92s came on line, we	
4 MS. FAGAN:	4 took a team. I've had some representations	
5 Q. And if it's a SAR search and rescue mission,	5 from the various oil companies logistics folks	
6 you need the hoist?	6 that come with me to Gander. We've done a	
7 MR. BURT:	7 presentation on the S-92, its capabilities,	
8 A. Right.	8 how many we have, this is what we do, this is	
9 MS. FAGAN:	9 our staffing requirements, and at some point	
10 Q. You don't take the doctor, and you contact	10 letting them know about our rescue	
11 JRCC?	11 capabilities, and in turn they've done the	
12 MR. BURT:	12 same thing. When we go out, we're typically	
13 A. Yes.	13 meeting with the Commanding Officer of the 1	.03
14 MS. FAGAN:	14 Rescue Unit and a bunch of his rescue	
15 Q. Would that be	15 specialists. So we've done that you know,	
16 MR. BURT:	16 in my five years of being the Base Operations	
17 A. That's correct, you got it.	17 Manager, I'd say we've had four or five of	
18 MS. FAGAN:	18 those trips to Gander.	
19 Q. All right. What is the level of communication	19 MS. FAGAN:	
20 or coordination between Cougar Helicopters and	20 Q. Okay.	
21 JRCC, DND? I mean, do you speak to each	21 MR. BURT:	
22 other, have you met, have they been to St.	A. I think sometimes it's an unofficial limit on	
23 John's, have you been to Gander?	how many people we can poach. That's what	It
24 MR. BURT:	24 turns into. So it is a tongue in cheek, but	
25 A. Yeah, we've had a long history with JRCC. On	25 there's a clear recognition that this is a	
Page 102		104
1 a yearly basis, we'll go up with our	1 great place that we've got people from, so we	
2 customers here will quite often go with us	2 work with them on that too.	
3 hand in hand to Gander, and just say, hi,	3 MS. FAGAN:	
4 how's it going, this is what we're doing and	4 Q. Okay. Now I'd like you to there's two	
5 have a sit down for the afternoon, even at	5 other sort of scenarios that I would like to	
6 that level. So again it's both Cougar and our	6 go through. I guess there's three. The first	
7 customers will go up.	7 one would be a non-oil operator medevac air	_
8 MS. FAGAN:	8 ambulance because we've heard from the vide	Ö
9 Q. So who do you just for the record, who do	9 that on occasion Cougar Helicopters could be	
10 you mean by your customers? Cougar	10 providing a service other than to the oil	
11 Helicopters will physically go to Gander to	11 operators. I believe it might have been	
12 have a meeting with Squadron 103, and who	12 phrased as a life and death or a humanitarian	
<ul><li>13 would also participate in that meeting?</li><li>14 MR. BURT:</li></ul>	<ul><li>13 type service.</li><li>14 MR. BURT:</li></ul>	
	14 MR. BORT. 15 A. Yes.	
15 A. Who's participated, Hank? 16 MR. WILLIAMS:	15 A. Tes. 16 MS. FAGAN:	
17 A. In the past I'd just like to go back a	17 Q. So are there occasions when Cougar Helicopte	r
17 A. In the past I d just like to go back a 18 little further when we talk about our	17 Q. So are there occasions when Cougar Hencopte 18 provides a medevac and it's not requested by	L
19 first, my predecessor, was the Commanding	19 the oil operators, and if that takes place,	
20 Officer of 103 Rescue in Gander. So he came	20 can you please describe how that takes place	
20 With a lot of communications already in place	21 and why it takes place?	
22 with 103 Gander. Drawing from that, over the	22 MR. BURT:	
23 years that I've been involved and been	<ul><li>23 A. Mr. Williams can speak to this.</li></ul>	
responsible for it, we've done what we call	24 MS. FAGAN:	
25 I call it industry courtesy, for want of	25 Q. Okay, thank you. Mr. Williams.	
25 I curre mousery courtosy, for walle of	$25 $ $\times$ $\times$ $\times$ $\times$ $\times$ $\times$ $\times$ $\times$ $\times$	

February 3, 2010	Iulti-PageOffshore Helicopter Safety Inquiry
Page	105 Page 107
1 MR. WILLIAMS:	1 A. Correct.
2 A. Okay, the just one understanding is that	2 MS. FAGAN:
3 all the aircraft that we have here, the three	3 Q. Basically, the people of Newfoundland and
4 S-92s, are under exclusive contracts to the	4 Labrador?
5 oil companies. So, in essence, they contract	5 MR. WILLIAMS:
6 100 percent of that aircraft. To use that for	6 A. Correct.
7 any other service other than the service of	7 MS. FAGAN:
8 those individuals, we need to have approvals.	8 Q. And when you conduct it's an air ambulance
9 MS. FAGAN:	9 type service. When you conduct this service,
10 Q. So it would be like taking my car and using	10 what you're doing is you're using the oil
11 it?	11 operator's asset or property to provide this
12 MR. WILLIAMS:	12 humanitarian life and death ambulance service?
13 A. I wouldn't take your car unless you said it	13 MR. WILLIAMS:
14 was okay.	14 A. Correct, and I need that approval, which we
15 MS. FAGAN:	15 had that agreement with the oil companies and
16 Q. All right.	16 how we manage that part of our business.
17 MR. WILLIAMS:	17 MS. FAGAN:
18 A. So typically the Government Air Services here	
19 of course, which operates the air ambulance	19 they given you the discretion or the pre-
20 for the island, they've had occurrences where	20 approval that if it's life and death, you can
21 there's been a requirement for medevac that	21 rescue that individual that needs the medical
22 their fixed wing can't land. I can go back to	22 treatment?
23 a couple. There was a very serious car	23 MR. WILLIAMS:
24 accident in Clarenville at 10 p.m. at night,	A. Exactly. If it's a life and death situation
25 and in order the only way they could get	25 at 3 a.m. in the morning, that if I'm going to
Page	
1 that individual to town was to call us. So	1 be going through the process of getting all
2 what we've done is in consultation with the	<ul> <li>the approvals, I'm wasting very valuable time,</li> <li>so if it's a life and death situation, we will</li> </ul>
3 oil companies, we've determined that if I get 4 a request for an aircraft that's not life and	
	4 proceed in doing it and inform the operators
<ul> <li>death, I'm going to be consulting with the oil</li> <li>companies on the phone because I say can I</li> </ul>	<ul><li>5 of what we're doing.</li><li>6 MS. FAGAN:</li></ul>
<ul> <li>6 companies on the phone because I say can I</li> <li>7 have your asset, whether it's to pick up a box</li> </ul>	7 Q. Okay, after you've launched?
<ul> <li>8 in Clarenville, or if it's a medevac, but from</li> </ul>	8 MR. WILLIAMS:
<ul><li>a life and death situation, the oil companies</li></ul>	9 A. After the the first priority is to expedite
10 have been very, very good in saying that we	10 the transfer.
11 are not going to question whether we are going	11 MS. FAGAN:
12 to a life and death situation if we are the	12 Q. Okay, and then you inform or tell the
13 only entity that can respond to it. The	13 operators that you've used their helicopter?
14 Government Air Services will be contacting 103	14 MR. WILLIAMS:
before they call us to do that. If 103 can't	15 A. But I might add, we do get calls that are not
16 do it, many times that's they're on a	16 life threatening that we will step back and
17 mission or they have some serviceability	17 say, you know, are we the only entity that can
18 issues, they will call us. So in the past	18 do this because, you know, they may say, well,
19five or six years, I think we've done probably	19 we'd like to have him in just because it's
20 15 or 16 of what we call life and death	20 not life threatening, but we'd like to have an
21 transfers for the Government Air Services.	21 individual transferred to St. John's from
22 MS. FAGAN:	22 Clarenville. We will say no.
23 Q. Okay. So when you say the Government, would	23 MS. FAGAN:
24 this be the Newfoundland Government?	24 Q. Okay. Do you receive requests, and I believe
25 MR. WILLIAMS:	25 Colonel Drover covered some of this, but from

February 3, 2010	Multi-Pa	ge <sup>™</sup> Offshore Helicopter Safety Inquiry
Pa	age 109	Page 111
1 Cougar Helicopters perspective, have yo	ou 1	is Exhibit 178 and if the Registrar could go
2 received requests from JRCC, or the Departm	nent 2	to Exhibit 178, it would be helpful. I
3 of Defence, to conduct a SAR search and res	scue 3	understand, Mr. Burt, you are going to take us
4 type mission or something that would be un	nder 4	through the scenario of a Cougar helicopter in
5 the 103's jurisdiction or responsibility?	5	distress and how it would be handled by Cougar
6 MR. WILLIAMS:	6	Helicopter dispatch and the rest of your
7 A. Yes, we have.	7	personnel?
8 MS. FAGAN:	8	MR. BURT:
9 Q. And what is the protocol or process when the	nat 9	A. Right. This document, of course, resides in
10 happens, and how does that happen?	10	the dispatch centre, and part of the training
11 MR. WILLIAMS:	11	of the dispatcher and the radio operator is to
12 A. It pretty well falls under the same umbrella.	. 12	understand and be tested to this manual.
13 If we get a call from JRCC for a rescue	13	MS. FAGAN:
14 mission, it's mission critical or they would		Q. Now are you going to refer to a particular
15 not have called us to begin with. These calls	s 15	page because if
16are not frequent, but they often will call if		MR. BURT:
17 they want us on a standby position, and it's		A. Yes.
18 the same protocol that we would do for th	ie 18	MS. FAGAN:
19Government Air Services, that if it's life	19	Q. If you had the page, the Registrar could bring
20 threatening, we're there.	20	it up on the screen for the parties.
21 MS. FAGAN:	21	MR. BURT:
22 Q. Okay. Now the last scenario is the Couga		A. It's Tab C, page 31. So it's Tab C1, and page
23 Helicopter in distress itself. So your	23	31. So there's two. It's titled
24 helicopter has a problem, it's in the air and	24	"Overdue/missing aircraft".
25 it requires a rescue service. So we have	25	MS. FAGAN:
Pa	age 110	Page 112
1 heard from Colonel Drover in DND and he		Q. Okay. Now I believe we had these pages
2 gone through what DND provides, and we've		numbered at the bottom perhaps, I'm not sure.
3 heard from you on the first response. So I	3	REGISTRAR:
4 take it when a Cougar helicopter is in	4	Q. What page number again?
5 distress, we end up with both aspects comin	<u> </u>	MR. BURT:
6 together. JRCC is involved and as well Coup	-	A. The first one is called Tab C1 at the bottom
7 may provide its own first response to rescu		of the page.
8 its own helicopter.	8	MS. FAGAN:
9 MR. WILLIAMS:	9	Q. Is there a Chapter, let's start with that.
10 A. Correct.	10	Commissioner, the pages are all Chapter/, I
11 MS. FAGAN:	11	believe.
12 Q. So can you take us through what happens if		MR. WILLIAMS:
13 pilot in the Cougar helicopter calls and says		A. They're action tabs.
14 I have a problem?		MR. BURT:
15 MR. WILLIAMS:	15	A. It's labelled Tab C.
16 A. And I think that's where we would activate		MR. BANKS:
17 emergency response plan from our dispat		A. Okay, if you go to Chapter 2.
18 centre, and I think, Rick, you're ready to		MS. FAGAN:
19 speak to our emergency response plan to th		Q. Okay.
20 type of scenario.		MR. BANKS:
21 MR. BURT:	21	A. And then scroll down from Chapter 2.
22 A. Yes.		MS. FAGAN:
23 MS. FAGAN:	23	Q. Okay, I believe your hard copy all has tabs
Q. Okay, and the emergency response plan is i		and action tabs, and we can't create tabs on
25 an exhibit. I believe it is one of the it	25	the computer.

Pag	ge 113	Page 115
1 MR. BURT:	1	the default notification. But as we go into
2 A. It actually says tabs. That's how we refer to	2	the details here, you'll see that if we have a
3 it in the document as well.	3	St. John's aircraft overdue, we'll contact the
4 MS. FAGAN:	4	Cougar Helicopters flight following as they
5 Q. Okay, so you have tabs.	5	may know location. Contact information is
6 MR. BURT:	6	there. Notifying the duty operations manager
7 A. So Tab C1 in the bottom.	7	is the second one, and there's a list of
8 MS. FAGAN:	8	numbers. Now they should be aware that when
9 Q. All right, so this would be the	9	this happens, we also have an automatic
10 MR. BURT:	10	function in our operation control centre where
11 A. That's it.	11	one button is pressed and all these
12 MS. FAGAN:	12	individuals are e-mailed at the same time, and
13 Q. That's it?	13	the hangar, as I say, goes into a stage of SAR
14 MR. BURT:	14	alert, literally on our screens.
15 A. Yes, that's the one right there. So this	15	Number three, call the local air traffic
16 would be the document that the dispatcher of		control to find out if they have any
17 the radio operator would use, and you'll see		communications. Also have Blue Sky pick up
18 from this here a list of actions to go	18	positioning from dispatch. As we come down
19 through.	19	here, it says advise them that there's no
20 COMMISSIONER:	20	emergency. You're trying to get an updated
21 Q. What tab is that?	20	estimate of time of arrival. Give them the
22 MR. BURT:	21	phone number where they can contact you. So
23 A. Tab C1.	22	this is an actual working document for them.
24 COMMISSIONER:	23	I will say that this also, we do a
25 Q. In the document, C1?	24	tabletop exercise two to three times a year
	ge 114	Page 116
1 MS. FAGAN:	1	and we'll create a scenario and this is all
2 Q. It's at Section	2	run through and this is how it's also refined
3 COMMISSIONER:	3	and tested and validated.
4 Q. 31.	4	Proceeding down, we call the platform,
5 REGISTRAR:	5	the rig, to find out the actual take off time.
6 Q. Tab 24, Commissioner.	6	Four, I'm sorry, five, the base manager will
7 COMMISSIONER:	7	determine whether the incident will require
8 Q. Oh, Tab 24, okay. Thank you.	8	upgrading or downgrading, and then from that
9 MS. FAGAN:	9	point then, we go down to the go to Tab 4.
10 Q. The books we have have all of the exhibits in		R. WILLIAMS:
11 it, so our tabbing is very different. The	11 .	A. I think the key to remember is the scenario we
12 manual that Mr. Burt has is its own book.	12	selected here in the manual is overdue or
13 MR. BURT:	13	missing aircraft, not an aircraft that we know
14 A. It's the live manual.	14	is missing.
15 MS. FAGAN:	15 MS	. FAGAN:
16 Q. It's the live manual, it's its own book, and	16	Q. Okay. So this is each scenario is laid out.
17 it's individually tabbed with letters. So we	17 MR	R. BURT:
18 should be at Chapter 2.	18	A. Right.
19 COMMISSIONER:	19 MS	. FAGAN:
20 Q. Okay, I have it now.	20	Q. And you go to the tab for that scenario?
21 MS. FAGAN:		R. WILLIAMS:
22 Q. Okay.	22	A. Correct.
23 MR. BURT:		. FAGAN:
A. As soon as we have notice of an overdue		Q. So this scenario is you're expecting -
25 aircraft, of course, as we said before, RCC is		R. BANKS:

Fe	bruary 3, 2010 Mult	i-Pag	e <sup>TM</sup> Offshore Helicopter Safety Inquiry
	Page 117		Page 119
1	A. The other one is just contacts.	1	live exercise, and then out of that, there's
2	MS. FAGAN:	2	always great learnings and this is how we
3	Q you're expecting an aircraft back from a rig	3	refine this document. So it's just not a book
4	and it's overdue.	4	that's on the shelf.
5	MR. BURT:	5 M	R. WILLIAMS:
6	A. And then from that, we would go to Tab 3.1.	6	A. And we take that to the full spectrum, which
7	That's page 3.1, I'm sorry, and we gather our	7	includes the reconfiguration of an aircraft
8	management team and assign responsibilities.	8	right to pushing the start button.
9	Turn to Tab 5, forms, and of course, this is a	9 M	R. BANKS:
10	working form here, emergency team and assigned	10	A. And that's timed.
11	responsibilities and distribute. Ensure	11 M	S. FAGAN:
12	everyone has form A and then move from there,	12	Q. So it's a drill?
13	and again confirm that RCC has been informed.	13 M	R. WILLIAMS:
14	As I said, that's our default role. All these	14	A. It's a drill.
15	have active numbers which are validated and	15 M	R. BURT:
16	updated. Confirm with Transport Safety Board,	16	A. It's a drill.
17	the RNC, being this is a St. John's based	17 M	S. FAGAN:
18	procedure, and confirm that the RCMP have been	18	Q. Now on March 12th, what did Cougar Helicopters
19	informed, other emergency phone numbers, and	19	have to do to get the responding helicopter in
20	again, we have a list of those on 4.3. We	20	the air? Can you just bring us through what
21	have our customer contact numbers, and then we	21	took place on that day?
22	establish our team members, secure the		R. BURT:
23	building, secure the records and then we have	23	A. As soon as we heard from the flight crew that
24	a procedure for that in Tab 9, for doing that.	24	they had an anomaly, we had, of course, our
25	If required, courier aircraft data sheets to	25	staff immediately assemble in the operations
	Page 118		Page 120
1	RCC, and there's procedures again in Tab 10.	1	control centre, and it's our procedure at that
	MS. FAGAN:	2	point, regardless of what's going on, that we
3	Q. Okay.	3	put the standby aircraft or the first response
	MR. BURT:	4	aircraft on what we call pre-alert. So it
5	A. I think there's a one thing I would	5	goes into a mode as if it's being dispatched
6	emphasize is that there's a big difference in	6	for real. But we do call it pre-alert. No
7	having a manual like this and making sure that	7	assumptions are made, just preparations.
8	it's exercised on a regular basis, and for us, the key with this is actually running through	8	From that point, we went through our emergency response plan and brought the team
9 10	those exercises two or three times a year	9 10	together and started engaging the crew of the
11	where we do that tabletop exercise.	10	aircraft, as well as RCC immediately, and once
	MS. FAGAN:	12	that was done, the Blue Sky information was
12	Q. And when you mean tabletop, could you describe	12	brought in, and the automatic SAR response
14	that?	13	button was pressed. Our whole hangar was
	MR. BURT:	15	immediately and at the same time notified.
16	A. It's a scenario we'll create, and of course,	16	Literally Mr. Williams and myself were
17	you have to be very careful of how you create	17	taxiing in to Halifax, where we had a meeting
18	the boundaries with this here, but we'll have	18	there, and both of our cell phones received an
19	a scenario that an aircraft is missing or we	19	e-mail at the same time, which is an automatic
20	have an aircraft that is in the water and then	20	function, and we were advised immediately that
21	we'll start from that. It'll be an exercise	21	there was a SAR alert. So again, everybody
22	and people won't be notified, but they'll be	22	knew immediately. We phoned in, like we were
23	notified this is an exercise, this is an	23	arranged to do, and we were briefed of the
24	exercise, and from that point on, we'll have	24	situation, and then following that, of course,
25	people at stations and then perform this as a	25	RCC were aware of the situation and they began
<u> </u>		1	

Fe	bruary 3, 2010 Mult	ti-Page <sup>1</sup>	M Offshore Helicopter Safety Inquiry
	Page 121		Page 123
1	their own internal process of responding to	1	March 12th and we're carrying three now.
2	it.	2 MS.	FAGAN:
3	We had the aircraft being reconfigured	3 Q	). In the dedicated helicopter with the FLIR, you
4	immediately, and this is a case again where	4	described that there is an observer monitoring
5	the seats were being taken out. The hoist was	5	the searching feature.
6	being installed and the flight crews were	6 MR.	BURT:
7	being called in and the rescue specialists	7 A	. Right.
8	were being called in. This was a case where	8 MS.	FAGAN:
9	they weren't they were not there. All of	9 Q	. Would that add another person or how many -
10	them were not there on site, so they were	10 MR.	BURT:
11	coming in. And as we gathered the information	11 A	No, that would be the third person that is the
12	from the flight crew and the events, that	12	medical specialist in the back. Now the
13	progressed to the stages that we knew.	13	medical specialist is also dual trained as a
14	When we lost contact with the aircraft,	14	hoist operator as well. When you get into an
15	it changed nothing in the way of how we were	15	actual hoisting situation, your FLIR is not an
16	preparing. We were preparing as if that was	16	active asset at that time and what they're
17	an eventuality. Therefore the crews were	17	doing is if you're bringing somebody up into
18	notified that the aircraft, we've lost	18	the cabin, they're helping, you know, extract
19	contact. They were given the last position.	19	that person and bring them into the cabin and
20	Our dispatchers developed a flight plan for	20	then, very importantly, to secure them. You
21	the flight crews for the rescue mission and	21	have an open door, an ongoing hoisting mission
22	our aircraft was prepared, refuelled and	22	where you may be hoisting multiple people. So
23	launched as soon as possible, and in this	23	you bring them into the cabin, secure them,
24	case, it was launched in under an hour.	24	and then assess them, so that initial first
25	MS. FAGAN:	25	advance, you know, first aid assessment of the
	Page 122	2	Page 124
1	Q. How long does it take to hoist someone out of	1	individual. Are they in shock or what is the
2	the water?	2	immediate attention that needs to be given to
3	MR. BURT:	3	that person?
4	A. If you're on site, it'll take about three	4 MS.	FAGAN:
5	minutes to effect one man down, to put a horse	5 Q	o. Okay. On March 12th, you had three rescue
6	collar on somebody else and to hoist them back	6	specialists. Can you describe what each
7	up. That's if you're on site overhead. Mr.	7	person did? We don't have the forward the
8	Banks here, he's done enough and I just want	8	FLIR, so what were the three specialists
9	to make sure that he'd validate that that is a	9	tasked to do?
10	cycle. Again, the one thing I will say, that		BURT:
11	that is a pretty generic cycle. If you're	11 A	. One specialist was prepared and ready to go as
12	hoisted to the water, they're also trained to	12	a rescue swimmer. That's one of the three
13	make an assessment of the individual and in	13	disciplines, as we mentioned before. One of
14	some cases, you know, how they're extracted	14	them was the primary hoist operator and the
15	out of the water, they had to make	15	other one was the second cabin rescue
16	accommodations for that, but if it's a	16	specialist. The rescue, once we were on
17	straight down and straight up cycle, it's	17	location and established the scene and found
18	about three minutes.	18	that there were two individuals there, we got
	MS. FAGAN:	19	the rescue swimmer on the hoist and lowered
20	Q. Okay, thank you. When you mentioned your	20	that person down to the water to make the
21	rescue specialists, how many rescue	21	assessment, and once they made the assessment,
22	specialists were you carrying on March 12th?	22	there was a hoist back up with the survivor
23	What was normal? What's normal now?	23	and the survivor was brought in the cabin and
	MR. BURT:	24	then secured by the cabin attendant that was
25	A. We were carrying three rescue specialists on	25	taking care of the security and the general

February 3, 2010 M	ti-Page <sup>TM</sup> Offs	hore Helicopter Safety Inquiry
Page	5	Page 127
1 condition.	1 essentially, we	take some very senior team
2 MS. FAGAN:	2 members from	our organization. These are
3 Q. Okay. I understand that a second Cougar	3 captains, actual	lly aircraft captains, that
4 helicopter also responded. Did that have	4 we've sent to p	oints in Europe to train on
5 rescue specialists or can you describe how	5 helideck inspec	tion and standards, as well as
6 that came about, when that helicopter arrived	6 fuel standards, f	fuel and fuelling standards.
7 and what that helicopter did?	7 They complete	the training and they're both in
8 MR. BURT:	8 Norway and the	e UK, depending on where the
9 A. And I'll I should back up also that there	9 courses are avai	ilable, and we also work to a
10 was another body in the water that we went	10 broader regulate	ory standard. We refer to the
11 over and the rescue specialist went back down	11 British CAP 437	standard, the fifth edition.
again and stayed there and the assessment, the	12 We do use tho	se, but we also use them in
13 dynamic assessment in the cabin stated that	13 conjunction wit	h the Canadian Coast Guard TP,
14 Mr. Decker was in critical condition and that	-	ation, 4414. That's our basis
15 time was of the essence. The rescue swimmer,	15 for doing our in	spections. That's where our
together with the crew, elected to stay with	•	uilt from, CAP 437 being more
17 the other body in the water and the aircraft		ore of a global standard.
18 left the scene with Mr. Decker. At that time,		is we'll go out and do initial
almost as one was leaving, we had a second		new vessels that are coming
20 aircraft that was reconfigured, equipped with		behalf of our customers, on
a second rescue team, a full rescue team on		ur customers. We may go to,
board, that came out and effected the	-	Rotterdam. We may go to
23 extraction at that time of the rescue		e may be in Halifax or actually
24 specialist and the other fatality.		ey arrive and do these
25 MS. FAGAN:		It the one thing is that, for
Page	5	Page 128
1 Q. Okay, thank you. Now you have gone through		consistently been requested to
2 the search and rescue services that you		by the oil and gas companies,
3 provide for the east coast, the St. John's		revenue flights to those
4 base, and for other areas, other customers. I		in, as we say in the front, we
5 understand there are other services that are		where we go. That's our saying.
6 provided by Cougar Helicopters beyond that of		teams in with a checklist
7 transportation and search and rescue,		good to look at the sample,
8 medevacs, and I would like to take you to the		gs that they'll check.
9 service of helideck surveys, and I understand	9 MS. FAGAN:	
10 there is an exhibit which is 167 which you		like the next page?
11 would like to refer to, which is the Cougar	11 MR. BURT:	I C
12 Helicopters pamphlet on the surveying of		y, yes, yeah. Thank you for
helidecks, and we did have some information	13 that.	
14 from the oil operators on Cougar's activities	14 MS. FAGAN:	
15 in surveying and inspecting the helidecks		ferring to the hard copy. We
16 offshore here. So now that the pamphlet's up,		or the would this be the
17 can you please describe the surveying service	17 correct -	
18 that Cougar Helicopter provides and then I'd	18 MR. BURT:	
19 also like you to describe the inspections	19 A. It would be the	e next page.
20 you've performed on the platforms and rigs	20 MS. FAGAN:	
21 offshore St. John's.	21 Q. Okay, thank yo	ou.
22 MR. BURT:	22 MR. BURT:	
A. The service that you're referring to is a	23 A. And then I thir	nk it would be -
24 helideck survey. In that is a bit of a	24 MR. BANKS:	
25 broader scope of what happens, but	25 A. Scroll down.	
	1	Daga 125 Daga 129

February 3, 2010	Multi-Pag	e <sup>TM</sup> Offshore Helicopter Safety Inquiry
H	Page 129	Page 131
1 MS. FAGAN:	1	to have our finger on that.
2 Q. Scroll down?	2	We look at emergency response and fire
3 MR. BANKS:	3	suppression equipment for the deck, weather
4 A. One more page.	4	equipment, communications equipment and all
5 MS. FAGAN:	5	aspects of flying to that rig. Again, we've
6 Q. Oh, one more page.	6	also got crew who are doing these inspections
7 MR. BURT:	7	who fly to these locations. I think, again,
8 A. Could be a scrolling down there you g	zo, 8	there's a nice complete loop here.
9 right here. So what I'm referring to is the		So this service that we supply, I think,
10 surveyor's documentation or a checklist.		bodes us well in managing our business and
11 has 23 basic points, but some of them as		it's also been a good service for our
12 looking for obstructions, the general dec		customers.
13 condition. I used to do this at one point, a		S. FAGAN:
14 the in my career. Deck markings, and th		Q. And this, at the bottom of this, it notes that
15 deck markings are also to the CAP 437		Cougar conducts yearly surveys. So is that
16 standard.	16	the situation for the HMDC Platform and the
17 MS. FAGAN:	17	FPSOs that you land on here when you're
18 Q. Now the CAP, we've heard a lot about C		transporting the workers offshore
19 here, which is the Canadian Association		Newfoundland?
20 Petroleum Producers. This CAP that you		R. WILLIAMS:
21 referring to is a different organization,		A. Yes, that's correct, yeah.
22 correct?		S. FAGAN:
23 MR. BURT:	22 11	Q. And would you have conducted this type of
24 A. Yeah. This is Civilian Aviation Publication		survey in you know, a survey like this for
<ul><li>25 so it's a UK document.</li></ul>	25	the platforms off the east coast, out of the
	Page 130	Page 132
1 MS. FAGAN:	1 age 150	St. John's base?
2 Q. Okay.		R. WILLIAMS:
3 MR. BURT:	3	A. Yes.
4 A. It's a CAP standard.		S FAGAN
5 MS. FAGAN:	5	Q. So the Terra Nova and the SeaRose and the HMDC
	6	Platform?
6 Q. It's a CAP, yeah, okay. 7 MR. BURT:	-	R. WILLIAMS:
		A. Correct. 5. FAGAN:
10 the other ones are signage, lighting. Most		Q. Would all have been checked?
11 these again are stipulated in the standards		R. WILLIAMS:
12 Helifuel systems, again this is a little bit	12	A. Correct.
13 to the side. As I talked to you before, the		S. FAGAN:
14 fuel offshore is our fuel. The quality	14	Q. Now we heard that the lights on the helideck
15 control of that fuel is ours to control. The		on the HMDC Platform, the Hibernia Platform,
16 tanks are free issued to us by the customer		were changed. Was Cougar Helicopters informed
17 However, we refuel those tanks. We seal t		of the change? I mean, did you know they were
18 tanks. We have the quality control. Th		going to change the lights prior to them
19 tanks go offshore, they're transported b	-	changing the lights? It might sound obvious,
20 supply vessels. They're put on board and		but I'd just like to know Cougar's
21 they're tested and that procedure, we		involvement, if any, in that change. I mean,
22 stipulate how they're to be tested and		it's HMDC's property, but it's a helideck that
23 records. So that's quite important for us to		you land on. So what was your connection, if
24 understand. We have a very good vest		any?
25 interest in that fuel offshore. So it's good	25 M	R. WILLIAMS:

February 3, 2010	Multi-Pa	age <sup>™</sup> Offshore Helicopter Safety Inquiry
]	Page 133	Page 135
1 A. I'd just like to explain a little further, if	1	come in, the calibration of the equipment. We
2 I could, the process of we just don't do	o 2	would not fly a next flight there until we got
3 helideck inspections for our benefit. It's a		that. So it ranges, like I'm saying, from a
4 very formal process that we go through v		high priority. The green lighting was not a
5 each operator. On an annual inspection,		high priority, but it was something that we
6 helideck inspector will submit to myself		discussed the process of how we're going to go
7 report, a very detailed report of the	7	ahead as a continuous improvement opportunity,
8 findings, recommendations and together	with 8	not as a safety concern.
9 the logistics that's forwarded to the		MS. FAGAN:
10 respective oil company and we sit down a	as part 10	Q. And the lighting on the helideck, did it meet
11 of our logistics meetings that I mentione	-	the Canadian marine standards as it was?
12 yesterday and we go through those helic		MR. WILLIAMS:
13 inspections together. We will -	13	A. Yes.
14 MS. FAGAN:	14 ]	MS. FAGAN:
15 Q. You mean you go through it with the	oil 15	Q. And if the lights had never been changed,
16 operators?	16	would it still have met that standard?
17 MR. WILLIAMS:	17 1	MR. WILLIAMS:
A. With the oil operator on what the helide		A. Correct.
19 inspector's findings were, his recommend		MS. FAGAN:
and a go-forward plan for implementation		Q. Okay. The lighting itself, where you do these
21 any recommendations. The specific, I th		helideck surveys, can you give us a sense of
the green lighting, if I can recall I'm	22	what's involved? I mean, is it just change
trying to recall this from memory, I would		out the bulbs? What goes into changing the
24 that you will find green lighting	24	lights from is it just changing the light
25 recommendations by our helideck inspect	tion for 25	bulbs or is there more to changing the lights?
]	Page 134	Page 136
1 the same green lighting as per the CAP 43	37. 1 1	MR. WILLIAMS:
2 We recommended that the lighting be ch	nanged 2	A. Changing of the lights would be something that
3 from yellow to green. You will find that	in 3	wouldn't be our process, so I think the
4 our previous helideck inspections. So the	he 4	individual company or the owner of that
5 changing of the lights was a process betw	veen 5	facility would understand their engineering
6 Cougar and Hibernia, side step with ea	ach 6	requirements and process for doing that. So
7 other, absolutely.	7	we followed that through, but yet we have no
8 MS. FAGAN:	8	control over that part of the process.
9 Q. Okay. From a priority perspective, we h	nave 9 M	MS. FAGAN:
10 heard in the presentation, that the	10	Q. Okay, thank you. The oil operators also have
11 recommendation was made, but it like	e it   11	entered as exhibits their helicopter
12 didn't happen the next week.	12	operations manuals. Now these are the oil
13 MR. WILLIAMS:	13	operators' documents. They're not your
14 A. No.	14	helicopter manuals. It's how they manage
15 MS. FAGAN:	15	their interaction with the helicopter and they
16 Q. There was time between changing these li	-	are in as Exhibit 133, 141 and 149 for HMDC,
17 So how did that rank from a priority or		Suncor and Husky respectively. Has Cougar
18 safety issue?	18	Helicopters and have you had any
19 MR. WILLIAMS:	19	involvement number one, have you seen the
20 A. Yeah. Of course, it wasn't a high priorit	-	manuals?
21 item. If it was, it would have got done.		MR. WILLIAMS:
22 Some of our helideck inspection items,		A. Absolutely. You will find a copy of each of
23 Rick got into some of the weather report	-	those individual manuals in my office and in
24 equipment. We've had incidents where w		our operations manager's office.
25 not prove the certification on any vessel th	hat 25 M	MS. FAGAN:

February 3, 2010 M	ulti-Page <sup>TM</sup> Offshore Helicopter Safety Inquiry
Page	137 Page 139
1 Q. Okay, and with respect to the contents of the	1 on, if necessary?
2 manuals, has Cougar been involved in any	2 MR. BURT:
3 revisions or anything that should go into the	3 A. A separate hood that the suit has, yes, but
4 manuals? Have you had any discussions around	
5 the procedures that are in these manuals?	5 COMMISSIONER:
6 MR. WILLIAMS:	6 Q. No, because you wouldn't be able to fly the
7 A. Yeah, absolutely. The manuals are the owners	7 plane and have your -
8 the documents belong to the oil companies,	8 MR. BURT:
9 but any revisions is consulted with Cougar on	9 A. That's correct. As well as gloves.
10 aspects pertaining to helicopter operations	10 COMMISSIONER:
11 offshore. There's some things in the	11 Q. So they would have to don this hood, if you
12 helicopter operations manual that's not	12 like?
13 necessarily Cougar's involvement, but issues	13 MR. BURT:
14 around the helideck, how passengers are	14 A. Correct.
15 transferred, how we handle the HLO activity	15 COMMISSIONER:
16 with the captain, and Rick mentioned about	16 Q. Yeah, afterwards, okay. The other thing that
17 fuelling, all that stuff would be there and	17 occurred to me, I should think the pilots
18 would be vetted through Cougar and in	18 would have their own suits. In other words,
19 consultation in every step of the preparation	19 you're a pilot. You don't take a size large
20 for the helicopter operations manual,	20 that I might have worn the day before.
21 absolutely.	21 MR. BURT:
22 MS. FAGAN:	22 A. No.
23 Q. Okay, thank you. That covers, I believe, the	23 COMMISSIONER:
24 questions that I have on this section. Unless	24 Q. It's your suit.
25 you we next have safety management system	· · · ·
Page 1	
	C
	<ol> <li>A. The suits are actually you're measured to</li> <li>your individual size and the suits are ordered</li> </ol>
·	<ul><li>3 specific to the individual from the</li><li>4 manufacturer.</li></ul>
4 because the video needs to be played and then	
5 - 6 COMMISSIONER:	5 COMMISSIONER:
	6 Q. I thought that might be the case.
7 Q. Yes, probably be a good idea, but I have two	7 MR. BURT:
8 or three questions which I'll ask.	8 A. Right, yeah. 9 COMMISSIONER:
9 MS. FAGAN:	
10 Q. So if there's a few questions that take us to	10 Q. Okay. The boots, are there boots on the
11 the -	11 pilot's suit? What kind of foot covering?
12 COMMISSIONER:	12 MR. BURT:
13 Q. And that might take us through, you know.	13 A. We have the sockettes in our immersion suit.
14 These are fairly quick questions, things that	14 So it's almost a sock that's attached to the
15 occur to me. We were talking about the	15 suit and then we fit them into our issued
16 pilots' suits earlier. Now obviously I	16 boots that we have for our flight crew.
17 shouldn't think that their suits they	17 COMMISSIONER:
18 don't, I'm sure, come up over in the way the	18 Q. I see, okay.
19 passengers' suit does, but does the pilot suit	19 MR. BURT:
20 come up to the fitting around the neck?	A. And those boots are all issued and even those
21 MR. BURT:	21 boots are made so they're oil resistant,
22 A. They do have a latex collar and they're a dry	22 standardized and they don't interfere with the
23 suit that fits around the neck.	23 operation of the aircraft.
24 COMMISSIONER:	24 COMMISSIONER:
25 Q. Yeah. So they must have a hood then that goes	25 Q. Okay.

February 3, 2010	Multi-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
Pa	age 141	Page 143
1 MR. BURT:	1 COM	IMISSIONER:
2 A. They're also, you know, steel nose so that	at 2 Q	And she made the comment that a lot of people
3 they're accommodating for all the OSF	H 3	go offshore wearing jeans or whatever under
4 requirements.	4	the suit, which she said is not a good idea.
5 COMMISSIONER:	5	I sort of tucked it away in my mind, but I was
6 Q. I see, okay. I've read that in some	6	quite interested to read within the last two
7 jurisdictions when a helicopter flight goes		weeks them say, one of the authorities in the
8 offshore, they have a cabin attendant wh		North Sea saying that no matter how good your
9 generally looks after the passengers, make	es 9	suit and if it keeps you absolutely dry, if
10 sure everything is in order.	10	you haven't got thermal protection, your core
11 MR. BURT:	11	temperature will start to decline, go down
12 A. Right.	12	fairly rapidly, depending on water
13 COMMISSIONER:	13	temperature.
14 Q. Is that necessary in your view? Is that	14 MR.	
15 discussed ever in Canada?		Right.
16 MR. BURT:		IMISSIONER:
17 A. The requirement, the essential requirement	-	Cougar, any of you any thoughts on whether
any more than 19 passengers, the law is th		thermal protection is an essential?
19 you must supply a cabin attendant. That's o		
20 trigger.		Well, we provide a waterproof layer and we
21 COMMISSIONER:	21	provide a flameproof layer and also with the
22 Q. Oh, okay.	22	thermal layer. We'll issue the undergarments
23 MR. BURT:	23	for that as well. Some of the flight crews
A. And that's why you'll see the limit of 19.		will have their own particular type of
25 It's not a coincidence in fixed wing or rotor		undergarment that they like better. Some like
	age 142	Page 144
1 wing. In some instances, the operators will		the mesh ones that keeps the that wicks the
2 also provide a cabin attendant if it's an	2	moisture away. We've used Helly Hansen
3 unfamiliar area or I know that	3	underwear and that's also been very good as
4 internationally some of the standards are a		well, because some of this stuff is designed
5 little bit different, so they will insist that	5	to wick away the moisture.
6 they do that. However, it is not a standard		IMISSIONER:
7 for normal passenger carrying to have a flig	-	Yes.
8 attendant in any of the operations that I'm		
9 familiar with.		But we do provide that layer of thermal
10 COMMISSIONER:	10	protection, and you're absolutely right, it is essential. It's part of the system, if you
11 Q. I see, okay. A small point, but it could be		will.
12 important. When I did the one-day trainin	-	
<ul><li>which I was required to do before going</li><li>offshore, I went back the next day and spe</li></ul>	-	MISSIONER: Okay. I'm glad I asked about that then. The
		other thing, the only other thing, it's not so
15 the morning with an instructor, a lady wh 16 gave me, I suppose, the best I won't say		much a question as a request, and I asked the
17 the only, but the best briefing on safety I	10	same thing of the operators. During the
17 the only, but the best bitering on safety 1 18 think I've had, and she was talking about w		course of the Inquiry, new things, and you've
19 to wear under the suits and she said she car		told us about new things which are coming like
20 up through the Coast Guard as an officer a		the auto hover and that sort of thing, but I
21 then a safety officer and she said "I would		would ask the company, through you and people
not go offshore without thermal protection		here, to inform us if any new things are
23 under the suit."	22	coming or actually here or on the horizon
24 MR. BURT:	23	during the course of the Inquiry, because I'd
25 A. Correct.	25	like to know that, as part of the overall
		, <b>r</b>

Fel	bruary 3, 2010	Multi	-Page <sup>TI</sup>	M Offshore Helicopter Safety Inquiry
		Page 145		Page 147
1	process.	0	1	financial and human resources to ensure
2	MR. BURT:		2	aviation safety and the safety of the public.
3	A. And that's a great piece of advice. I am	the	3	In other words, all aspects of our operations,
4	chairman of the offshore committee of		4	from flights to maintenance to office work,
5	Helicopter Association International. So	o we	5	are governed by a single comprehensive
6	do get a lot of information and we do be	ring	6	document.
7	those groups together. We attend the Eur	-	7	The SMS was initiated by Transport Canada
8	Helicopter Association, even though we'	re not	8	in 2004 as a part of an international effort
9	a European operator, for best practices. S	So I	9	to reduce incidents in the airline and
10	certainly will take that request and give		10	helicopter industries. Although regulated
11	some serious thought.		11	audits are scheduled to begin in 2011, Cougar
12	COMMISSIONER:		12	Helicopters has already developed a safety
13	Q. Thank you. That will be appreciated.	Okay	13	management system of our own that exceeds
14	then, we'll adjourn now then until 2:00.	-	14	regulatory requirements long before the
15	(LUNCH BREAK)		15	international need was determined.
16	MS. FAGAN:		16	Safety management system is a documented
17	Q. Okay. We are going to move into the s	afety	17	set of processes that govern total oversight
18	management system, but we have one cla	-	18	of safety within a company, especially the
19	point before we move to this next topic,		19	aviation division. Transport Canada has made
20	understand, Mr. Williams, you would li		20	this a regulatory initiative and by 2011,
21	clarify the situation when a third party, n		21	helicopter operators must have this safety
22	oil operator, makes a request for an ai		22	management system in place. Cougar
23	ambulance or if it was JRCC for Coug		23	Helicopters has developed and has in place an
24	Helicopters to do a SAR mission and it w	-	24	integrated safety management system which not
25	have to deal with what happens to the sta		25	only encompasses aviation safety, but has also
		Page 146		Page 148
1	helicopter or the first response helicopte	-	1	included health safety and environment
2	for the oil workers if you've sent a		2	processes as well as ISO 9001:2008. By doing
3	helicopter off to conduct an air ambuland	ce.	3	so, by the collective group of all these
4	MR. WILLIAMS:		4	safety processes, we have total oversight
5	A. Yeah. Just want to clarify. Just wanted	to	5	throughout our operations globally. It
6	clarify that in the incidents where we do		6	encompasses all departments. It doesn't
7	one of the oil company assets to perfor		7	single out any departments. General safety
8	third party service, we always ensure the		8	rules are built for every employee and it's a
9	there's another airframe at the heliport		9	fluent system within Cougar Helicopters
10	respond to any offshore emergency.		10	globally and it's not the safety department
11	MS. FAGAN:		11	system. It's the employees' system.
12	Q. Okay, thank you. We now have a section	ion on	12	This safety culture includes careful
13	safety management and this will actuall		13	attention to the extensive paperwork and
14	the last video. If the Registrar would pla	-	14	documentation generated by our work processes
15	it? Thank you.	-	15	and is essential to meet the requirements of
16	(VIDEO PLAYED)		16	regulators and needs of our clients. Cougar
17	Safety management system. Safety	is	17	Helicopters also performs ongoing internal
18	tightly integrated within every aspect of	of	18	audits of our systems and processes as well as
19	Cougar Helicopters' operations. These va		19	any external review requested by regulatory,
20	processes and procedures do not exist	in	20	customer or industry stakeholders. It is a
21	isolation. They fall under the umbrella		21	part of Cougar philosophy that having fresh
22	our integrated safety management syste		22	eyes to look at things is always a good idea.
23	SMS, which is a documented process		23	Scheduled audits take place internally
24	managing risk that integrates operations		24	from Cougar on a rolling basis. The audit
25	technical systems with the management	nt of	25	program itself sees a lot of cross auditing
<u>ـــــ</u>	· · · · · · · · · · · · · · · · · · ·			Page 1/15 Page 1/18

Febru	ary 3, 2010	Multi	-Pag	<b>Offshore Helicopter Safety Inquiry</b>
	P	age 149		Page 151
1	capability through the departmentals and		1	us that generative mind set is alive in Cougar
2	facilities and operations globally. New		2	Helicopters.
3	startup operations will also go through a		3	Cougar Helicopters has been successful in
4	series of audit inspection to ensure that we		4	creating a proactive safety culture across all
5	have all bases covered before we turn blade	es	5	aspects of operations in Newfoundland and
6	on a new base. We also have many third pa	rty	6	Labrador. We have since exported that
7	contractors that come in and they audit on		7	culture, along with our rigid standards and
8	behalf of our customer. Quality assurance		8	procedures, to every corner of our global
9	has quite a few more because they do it in a	ı	9	operation.
10	month-to-month basis. It doesn't necessaril	у	10	(VIDEO ENDED)
11	bring in a lot of findings at times, but it		11 M	IS. FAGAN:
12	gives you an opportunity to get down to the	e	12	Q. Now the next portion is a slide presentation
13	employees' levels that are working in the		13	on the safety management system at Cougar and
14	areas and the departments and have oversig	ht	14	I understand Mr. Banks is going to lead on
15	to see if there's any underlying problematic	:	15	this and Mr. Burt is also going to jump in
16	areas and just let the individuals know that		16	where necessary. The first slide that you've
17	there's somebody to talk to that if there is		17	prepared, I think we've seen this before. So
18	change occurring, we've got to know that a	nd	18	Mr. Banks, if you could just speak to this and
19	address it in a timely manner.		19	then we'll move into the system itself.
20	Cougar Helicopters has worked hard to		20 M	IR. BANKS:
21	create a safety culture in which all		21	A. Sure. We did see it before, but I thought it
22	employees, no matter what their work roles	s,	22	was important to show it again because it
23	are empowered to act wherever and whene		23	clearly states from the top down approach, how
24	they observe unsafe behaviour or situations.		24	safety is governed in our company. Our CEO
25	Our company maintains a non-punitive ju	ıst	25	right down through the general managers,
	P	age 150		Page 152
1	culture. This is one we worked hard to		1	safety is the priority of all Cougar
2	achieve and this is where we sit presently,		2	Helicopter operations, as is VIH. So I'd like
3	and we're going to go that way forward. The	nis	3	to say it again. No operation or business
4	entails individuals reporting freely using		4	opportunity, either new or ongoing, should
5	their name or the option of anonymous		5	ever compromise safety or unduly affect our
6	reporting. This opens up a wide variance to		6	accepted levels of risk of the VIH Aviation
7	us and we can get back to individuals with t		7	Group of Companies. That's a heavy statement.
8	corrective actions. If not, on the anonymous		8	That's what Mr. Norie believes in and that's
9	side, we're still getting the information and,		9	how everybody is distinguished through our
10	you know, you can be a reactive company.		10	company. It's across all avenues of our
11	can be a proactive company. You can be		11	operations and the full group of companies.
12	generative company. The further up the sca		12	The most important statement and belief is
13	you go, the more that you know that the		13	from the top down.
14	culture is set and embedded within your			IS. FAGAN:
15	employees. It's not an easy task, but once		15	Q. Okay, thank you. Now we heard safety culture.
16	you get there and individuals spell that off	that	16	We've heard this term before. Could you tell
17	to newer employees coming in, you know		17	me what does that term mean? What does safety
18	you've grasped the mind set that everybody	15	18 10 M	culture mean to you and at Cougar?
19	thinking alike. We like to think of our	a let		IR. BANKS:
20	company as a very proactive company with		20	A. Right. Safety culture, it's the way safety is
21	of new initiatives. The generative side is		21	perceived, valued and exercised by an organization and its amployage. It reflects
22	coming along very strong and it's to the point where applevees aren't waiting for		22	organization and its employees. It reflects
23	where employees aren't waiting for		23	the real commitment to safety at all levels,
24	departmental heads to make initiatives. The	-	24	again from the top down, and the highest point
25	are bringing the initiative to us, which tells		25	you can say about safety culture is, you know,

Page 153 1 it's right there on the slide, how an 1 bringing things forward to us, not need	Page 155
1 it's right there on the slide, how an 1 bringing things forward to us, not need	
	cessarily
2 organization behaves when no one is watching, 2 major changes but things they'd like	•
3 and that's a true statement. It's one that's 3 So we've really partnered with eve	
4 taken a long time for Cougar Helicopters to 4 of our organization at the employee	• •
5 develop, all the way back into the early '90s. 5 ensure that they know that they can b	
6 We've strived to, you know, ensure all new 6 implementations or any concerns	
7 employees coming in from other avenues, other 7 initiatives, they can bring it forward	•
8 industries, that they get the grasp, they 8 and we'll act on it, have a good look	
9 understand what we're trying to achieve, to be 9 and if warranted, then we can put it in	n place
10 a team player, to get involved, to mention new 10 for them, and as I said in the video ea	arlier,
11 initiatives and don't be afraid to come up 11 it's not necessarily, you know, that	t the
12 with anything, you know, if it's say reporting 12 organization that the management	
any acts or any hazards, anything they've 13 management system, it's everybody'	-
done, but bring it to us so we can correct 14 It's facilitated and developed by h	igher
15 things. I think truly without a safety 15 management, but everybody with	nin the
16 culture any SMS or safety management system is 16 organization has a play and a partici	
17 not effective. You have to have everybody on 17 within it. So we want to make sure th	-
the side thinking safety at all times and 18 active, that role, and that's why we n	nade it
19 willing to take an active stance where others 19 an integrated system with ISO incl	luded,
20 wouldn't normally. 20 aviation and health and safety. We	pulled
21 MS. FAGAN:21them all together so that when an inc	lividual
22 Q. How do you develop a safety culture? And I 22 thinks safety, there's a one-stop sho	p for
23 believe the next slide may have it's a 23 safety. Everything's embedded in	that.
24 fairly detailed slide, slide 67, but what I'd 24 Everybody knows where to go for it a	and not to
25 like you to do is tell me does Cougar 25 separate programs. We've pulled	it all
Page 154	Page 156
1 Helicopters have one? I mean, I believe 1 together because it's truly the heart	ũ.
2 that's what you've been saying. 2 organization and nothing is more i	mportant
3 MR. BANKS: 3 than safety.	_
4 A. Yes. 4 MS. FAGAN:	
5 MS. FAGAN: 5 Q. Okay. You've described, and I'm g	oing to have
6 Q. But how do you know? Give me some practical 6 you go in through the system in a lit	tle more
7 examples as to how you know that the safety 7 detail to describe the actual system,	how it
8 culture exists. 8 works. Have you fully implemented	l the safety
9 MR. BANKS: 9 management system? Because in s	some of the
10 A. Okay. First of all, by setting up a safety 10 information that's been put forward	earlier,
11 management system that has been in development 11 there was discussion, say the retu	rn to
12 and has been used for quite a few years from 12 service, that Cougar Helicopters	s is
13Cougar, not to the specs of the Transport13implementing a safety management	system. So
14Canada regulation, but to have that in place,14is the system itself fully implemente	d or are
15 to understand everybody knows the 15 you still in that phase?	
16 responsibility, their effective achievements, 16 MR. BANKS:	
17 their proactive reporting. You know, you can 17 A. Okay, I'll just step back a little bit	
18 go into the policies and the set rules and 18 time. As I said, we had components	
19everything else, but people have to understand19programs in place. By pulling it all t	-
20 all this. They don't necessarily have to go 20 to make an integrated system, you kn	
21find it in a book somewhere. It's got to be21of those safety programs that were	
22 embedded through every aspect of the 22 came on board the safety managem	-
23 operation. So when you have, you know, the 23 So it's not to say that we didn't ha	
24 reporting that we have, it just states in our 24 before. We've always had one. This	
25own minds that people are generally, you know,25newer format and we built it in spec	to the

Feb	ruary 3, 2010 Mul	ti-P	age	Offshore Helicopter Safety Inquir
	Page 157	7		Page 15
1	Transport Canada regulations. So to that	1		where the rest of the industry is, the
2	regulation now, the SMS has been implemented	2		helicopter industry?
3	as of July 1st, 2009 and it far exceeds where	3	MR. B	ANKS:
4	we were supposed to be with it. So we had so	4	. А.	It certainly is. Over in Europe, it has been
5	much embedded before, as we pulled together,	5		regulated for a couple of years. Canada took
6	we came out with a really nice package. It	6	i	a step up. They were next to really proceed
7	was understood by many. So there wasn't much	7		under Australia's background, as far as I
8	change to do. There were new initiatives put	8		know, and we seem to be next in line for
9	into it and build it up to this and the	9	)	regulation and the United States is coming up
0	integrated facilitation also allows us to use	10	)	fast and furious now too with their programs
1	it as a training vehicle. Whenever I'm	11		and regulatory bodies. Through some of my
2	training with the SMS, all employees are	12		training, it's been taken down in the States
3	orientated to it and now we bring it into	13		on SMS as well as up in Canada here and
4	components, and there's a division line of	14		there's a number of operators that are going
5	components within it, but we can tailor it and	15		that route, not waiting for the 2011
6	facilitate it, keep it live and actually	16	i	regulation, but acting upon themselves, the
7	educate our staff at various meetings and SMS	17		larger helicopter groups that I'm talking
8	lead way briefs, we call them, that	18		about, really struggled. You know, a lot of
9	departmentally I can take a group of people	19	1	them are struggling because they're not really
20	and we'll walk through, say, management of	20	)	sure of how the implementation is going to
21	change. Now it's an education tool, so that	21		happen. The guidelines are there, but until
2	when I'm not there and they may have forgotten	22		it does, I think they've got a grasp on it. A
3	how to use something, it's built so that they	23		lot of operators have come to me for
24	can use it on their own. They've been, you	24		assistance and we've fostered out quite a bit
25	know, educated on it, but it goes step by step	25		of our information on how to make it not
	Page 158	3		Page 16
1	all the way through. So it's not just a	1		necessarily a 20-page document but actually a
2	safety manual. It's actually an education	2		system, a full system.
3	series.	3		We didn't want to use it as a reference
	MS. FAGAN:	4		material which a lot of companies only have to
5	Q. You say that you're further ahead than where	5		do. We wanted to have the whole package in
6	you should be or need to be. We heard in the	6		front of people, that they have the bible, as
7	video that it's going to be regulated or	7		you would, for safety at hand.
8	required by 2011. Is that correct?		MS. F.	
	MR. BANKS:	9		You had said that you've been to the United
0	A. Yes, it is.	10		States and Europe. Are you part or is Cougar
	MS. FAGAN:	11		part of any industry groups or organizations,
2	Q. Is it required now in the fixed wing airline	12		associations? And I'm talking in relation to
3	or is 2011 the helicopter -	13		safety, and if you're involved, why would you
	MR. BANKS:	14		be involved? What do you get from these
5	A. 2011 is the helicopter time line. Fixed wing	15		groups?
.6	is under their audits right now. Many have		MR. B	
.7	been done. I couldn't speak to how much is	17		I think it's a very important aspect that
	completed there, but under our category, it's,	18		every organization participates in not just
8	· · ·	19		foreign, but any of these committees. When
	I beneve. November 2011 they start	11/		conventions are held, there's so much to
9	I believe, November 2011 they start.	20		
.9 20 N	MS. FAGAN:	20		
.9 20 N 21	MS. FAGAN: Q. Okay, and do you know if other aviation	21		learn, so much education to learn from others
19 20 N 21 22	MS. FAGAN: Q. Okay, and do you know if other aviation operators, I'm talking helicopter aviation	21 22		learn, so much education to learn from others and the sharing of best practices. Myself,
18 19 20 N 21 22 23 24	MS. FAGAN: Q. Okay, and do you know if other aviation	21		learn, so much education to learn from others

February 3, 2010 M	[ulti-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
Page	161	Page 163
1 Safety Team, and as Mr. Burt was saying	1	Banks, perhaps you can indicate you can
2 earlier, he's had a large presence on the	2	either move it or the Registrar, where here
3 offshore oil committee down in for the HAI,	3	we are, okay.
4 which is the Helicopter Association	4 MR. B	ANKS:
5 International. There are others. They're the	5 A.	I'll pick it up here.
6 three I'll highlight, but we take an active	6 MS. F	AGAN:
7 stance on getting involved and not only	7 Q.	Okay. So just indicate where you'd like her
8 sharing our information, but gaining and	8	to scroll and she'll scroll down.
9 grabbing education from others.	9 MR. B	SANKS:
10 MS. FAGAN:	10 A.	Okay. Well, I just wanted to give you a brief
11 Q. Okay, thank you. Now the system, the	11	look at it and how it's developed and leads
12 integrated system has been provided as a	12	into a full set of programs. So we start off
13 confidential exhibit. It's Exhibit 179, and	13	with an introduction and that's coming for our
14 you also have some slides. So is it your	14	company, our CEO and you know, the need for
15 preference to go through the slides? Because	15	SMS, his requirements and truly his initiative
16 the next slide would be the risk assessment	16	to move this forward was to take every group
17 matrix, but I would just note that the entire	17	of his company and appoint a director of
18 system is there in a hard copy as an exhibit.	18	safety management systems. We liaise with
19 I believe it exceeds over 200 pages. So if	19	each other quite a bit. We tailor our
20 you're satisfied to move to slide 68 and deal	20	programs together. We share a lot of
21 with risk assessment matrix, we will. But if	21	information and by doing that, we have certain
22 you see the need to actually refer to the	22	fleets within the group that are the same
23 manual or the table -	23	aircraft, so it only benefits on not only
24 MR. BANKS:	24	regulatory side of the house, but active
25 A. I'd like to, yes.	25	objectives in our flying routines.
Page	162	Page 164
1 MS. FAGAN:	1	So we'll look at safety management plan
2 Q. Would you like to go to that now?	2	is there and you can see what's listed under
3 MR. BANKS:	3	there. That's all our operating procedures,
4 A. Yeah, the table of contents.	4	company standards. Standardization has become
5 MS. FAGAN:	5	a big player with us now with more operations.
6 Q. It is helpful in helping people understand.	6 MS. F	
7 So that would be 179. So we'd move to the	7 Q.	What's third party standards and operating and
8 at least the table of contents. Everybody can	8	guidelines? What would be a third party
9 rest easy. We're not going to cover the 200	9	standard?
10 pages.	10 MR. B	BANKS:
11 MR. BANKS:	11 A.	Well, we go into different areas of standards
12 A. And again, with that confidentiality, you	12	within regulatory bodies that have us
13 know, we're all about sharing information so	13	certain guidelines that we must follow, where
14 it's not quite a big deal as it may seem with	14	we're flying in, what areas of the world, that
15 confidential label on it. If anybody wants to	15	we must take into account prior to starting up
see it, they're welcome to come up to the	16	operations there. Our flight operations
17 office and sit down and go through it with us.	17	group, our maintenance certificates and when
18 MS. FAGAN:	18	we're cross-bordering that kind of thing, as
19 Q. Okay. So if there's another operator out	19	well as third party standard for our
20 there would like some help, you've done that	20	customers, what they would like in their
21 before?	21	contracts maybe a little different than what
22 MR. BANKS:	22	we have set right now. So we'd make
23 A. Yes.	23	applicable changes through management of
24 MS. FAGAN:	24	change and ensure that we're operating under
25 Q. Okay. So I believe the table of contents, Mr.	25	the guidelines set by our contracts, as well

Febru	ary 3, 2010	Multi	-Page <sup>T</sup>	M Offshore Helicopter Safety Inquiry
	Pa	ige 165		Page 167
1	as government agencies as well.		1	covered before we accept a job and it's got to
2	Safety promotion. Certainly it's all		2	be down to, you know, a risk level as low as
3	about communication. It's one of the bigges	t	3	reasonably practical.
4	factors in our safety programs, from meeting	;s	4	Incident hazard reporting. We have a
5	to general meetings, committee meetings.		5	really good system and we'll get into that in
6	There's a number of avenues there as well a	s	6	a couple of minutes. It's an in-house built
7	safety boards and, you know, generation of	f	7	system that is tailored on a monthly basis and
8	completed safety events, our reporting		8	we're seeing a great deal of new initiatives
9	systems, to make sure that everybody is away	re	9	coming to it that are allowing us trending.
10	of what's going on. We try and involve also		10	It really affects our performance going
11	everybody in the company, you know, whe	ther	11	forward. It's done us quite a bit of benefit,
12	it's a secretary down the hall in finance. We		12	and also we've had a lot of other players out
13	want her to know about the operation as well		13	in the industry come and view it and use it on
14	instead of just saying HFDM, she now know	/S	14	their own operations.
15	that it's helicopter flight data monitoring.		15	Investigation and analysis. That's an
16	Bring her in, get her immersed in everything	-	16	ongoing event. Every time that we have
17	we do. Everybody knows every part of ou		17	something that raises our eyes, we'll dig into
18	business. Nobody is pushed to the side and		18	it as a team, not just the safety department,
19	not know about a certain area of what we do		19	but our specialists from other fields within
20	Document control, another big factor. We		20	our divisions.
21	have a lot of reporting that goes out to		21	Safety assurance, and that's when we'll
22	customer, regulatory bodies, in house to		22	get into audits and inspections, risk
23	management, to the people on the floor or ju	st	23	assessments, our database, drug and alcohol
24	day-to-day collection of data that people		24	testing criterias, policy and program.
25	should be seeing and how our performance	is	25	Management of change is probably our biggest
	Pa	ige 166		Page 168
1	doing.		1	factor that we have set our eyes on lately and
2	And one of the biggest factors here,		2	use it a lot more in the last year than we did
3	hazard identification and risk management	•	3	before. We have new processes to it that
4	That's a daily effect for us. We go into risk		4	allow us to do it departmentally, not just
5	assessment matrix, rankings. We have comp	-	5	from the safety department, but now we're
6	risk assessments that not only go into genera		6	engaging all employees in every department to
7	operations and ongoing operations, such as	3	7	develop these on their own and sign off
8	safety cases that we take a hazard register,		8	through the safety department to understand
9	have meetings, build up as many hazards as		9	that we're reasonably not reasonably, but
10	can think of and then pick them apart and ma	ake	10	mitigated throughout before we proceed.
11	sure we're mitigated right to the final end.		11 MS. I	
12	But we also go down into the job safety			. Okay. What do you mean by management of
13	assessments, risk management, risk assessme		13	change? And I think we've some have
14	for new operations. You know, the genera		14	touched upon it. The title may speak for
15	managers have put together teams where i		15	itself, but could you give us an example of
16	we're going to start up a new operation, we'l	11	16	what would be a change? You said you've used
17	take a lead from each department, travel to		17	that a lot more in the last year. So what
18	that location far before the operation begins		18	would be a change, and then how do you use
19	and we'll piece it together. What is our		19	this system to manage the change?
20	risk? Bang, we'll set it out as a team, pull		20 MR. I	
21	it all together, come back, work on it, ensure	;		. Well, for example, just the latest one we've
22	that we can do it safely even before, you		22	done, I guess, is the new S-61 came into our
23	know, signing contracts or we want to mak		23	operation just recently. For that, to
24	sure that we're not jumping into something w	we	24	reintroduce a new aircraft to our base, we
25	can't handle. Every element of risk is		25	have to get together as a team of all

Feb	oruary 3, 2010	Multi	-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
	Pa	age 169		Page 171
1	departments, break down all the		1 MS. F/	AGAN:
2	responsibilities, ensure this isn't going to		2 Q.	Okay, thank you. I think that gives a good
3	affect our operations as we're working no	w.	3	idea as to what is covered in a system. I
4	We also want to use it, utilize it for a		4	noted there was everything from forklift to
5	little bit of SAR training. So if or on		5	pandemics. So perhaps you could now move back
6	standby. So if we have these parallels that		6	to the slide presentation and we'll go to
7	we have to make sure every area is mitigat	ed	7	slide 68, which is a risk assessment matrix.
8	from towing to properly certified engineer	rs	8	We have had this type of presentation. It
9	and pilots and crewing and dispatch. There	e's	9	mightn't be exactly the same, but some of the
10	a variance. There's lists that go on and on,		10	other presenters have gone through their risk
11	scheduling, and so we make sure we've go	ot it	11	matrix. So if you could and I think the
12	all together and then we assign duties to		12	next slide, if I know it's a little
13	these departments to ensure that everything	g is	13	difficult to move back and forth, but the next
14	done correctly and completed and we take	the	14	slide gives the levels, low, moderate and
15	risk assessment matrix and we utilize that		15	unacceptable. If you could just briefly give
16	against all areas here to make sure that our	•	16	us these definitions and then move back to the
17	numbers down to ALARP again, as low		17	matrix and explain how you apply it to a
18	reasonably practical, and then when we'r		18	scenario at Cougar Helicopters.
19	sufficiently satisfied that the criterias have		19 MR. B	
20	all been met and everything is in place, the	n	20 A.	First of all, it is one of our highlights of
21	it's safe to move forward, then a sign off		21	risk and hazard management. It's something
22	occurs by the general manager.		22	that we use practically in investigations,
23 1	MS. FAGAN:		23	event reporting, safety cases, management of
24	Q. Okay.		24	change, as well as any risk assessment. So
25 1	MR. BANKS:		25	it's used frequently. It gives us a
	P;	age 170		Page 172
1	A. Again, I'm just showing you how, you know, w	-	1	quantifiable number that through past
2	go from aviation into HSE here into training,	•		experience that will enable us to see where a
3	safety management training. Management of			condition sits, whether it's a new condition
4	change is a whole section on its own. Our			or an established condition. It tells us
5	emergency preparedness and response is			where we are with that, and what we have to do
6	embedded. And finally, we can't manage what	t		is bring it down to the lowest level of risk.
7	we can't measure, so we have to have that	-		Red being unacceptable, if we come up in those
8	ensured that measurement is in there for all			kind of numbers, we have to work it down to
9	of our safety and leading us into improvement.			get it into the yellow or the green. Even in
10	So we audit the system ourselves as well as			some cases into the yellow, and that's a
11	third party audits and coming up in 2011,			sidebar to me that it's not good enough, so we
12	we'll have regulatory as well. So it does get			want green. Yellow, you know, you will end up
13	oversight. It's a living and breathing system			monitoring and maintaining strict controls.
14	and like I said, it's the bible of everything			That's pretty tough, you know, if you're going
15	we do.			to leave that to departmental levels, it still
16	These are components. I believe Canada,			needs to be mitigated in my eyes. So you want
17	Transport Canada is asking for seven or eight			to get it down as low as reasonably practical.
18	components and as you can see here, we have			When you get into areas of search and rescue,
19	11. There's 12 listed, but one's the			some of the you know, some of the critical
20	introduction. So we've gone a little further,			activities that we do, the lower level of
20	but that's you know, that's only because			yellow may be as far as you can get, so that
21	we've already had those kind of things in			the monitoring is definitely going to be the
22	place and we really didn't want to lose them.			biggest factor there, but the green is what we
23	We brought them across as we developed it, and	d		desire and that would be monitored and managed
24	I'm sure they'll be added as we go as well.	~		through normal safety procedures. If it's in
25				anough normal survey procedures. If it's in

Fel	bruary 3, 2010 Mul	ti-Pag	ge <sup>TM</sup> Offshore Helicopter Safety Inquiry
	Page 17	3	Page 175
1	the red, it's a no go.		MS. FAGAN:
2	MS. FAGAN:	2	Q. So is there an example, a tangible example?
3	Q. Okay. So if you could go back I know it's	3	If you're applying this, and I know this would
4	a little difficult, we couldn't get it all on	4	be a hypothetical, and I'd like you to, if you
5	the one slide, that's why were into two	5	could, keep it to a very simple hypothetical
6	slides. So 68, now that we know the	6	because I have gotten the sense that your
7	definitions, could you explain your matrix?	7	industry involves a lot of factors, probably a
8	You just mentioned a SAR mission, you say,	8	number of considerations, but if there was a
9	I guess there's just so much it's the type	9	fairly simple example as to how you would come
10	of activity that you may end up in the yellow	10	up with one of these numbers, I'd appreciate
11	no matter what you do.	11	it?
	MR. BANKS:	12 M	MR. BANKS:
13	A. Right, and yellow is controllable. You know,	13	A. Yeah, new operation, start up of a new
14	it's the red that we're worried about. If we	14	operation. This card would go with us. We'd
15	can work the yellow into green, all the	15	be up and we'd apply it to every aspect.
16	better.	16	Flying in the north, is that aircraft capable
	MS. FAGAN:	17	of it; what are the SAR resources in place if
18	Q. So can you take us through an example or show	18	we have one machine up there; do we have
19	us how these numbers work?	19	backup, apply it to this, come up to red, it's
	MR. BANKS:	20	not how can we get it, who can be there for
21	A. Okay. Many of the oil industry guys will	21	us, and how can we limit flight, as well as
22	notice this and be familiar with it. Those	22	hangar, you know, do we have a place to store
23	who aren't, it's the potential and consequence	23	the aircraft inside, is the elements outside
24	coupled together from the left side to the	24	going to raise a particular problem for us,
25	right, and as you'll see in the boxes, we have	25	creating a hazard in providing the service.
	Page 17	-	Page 176
1	people, assets, environment, and reputation.	1	It goes into so many variables that one aspect
2	This is the consequence that we may see of a	2	wouldn't really give you the idea. So if we
3	particular aspect you're looking at or a	3	take that, focus it against one area, you
4	hazard register or an operation. So the	4	know, towing the aircraft on a slope into the
5	potential would be on the right hand side,	5	hangar, that type of thing, you know, so how
6	with improbable, known in the industry. Now	6	many people would you need, have we got the
7	you've got to know what they are first and a	7	people in place for eyes left, right, back,
8	little research goes into that on past	8	and front, so that you don't ding a blade on
9	history, so if you come up with that, coupled	9	bringing it into the hangar. Is it the proper
10	with the consequence on the left, it'll bring	10	tug, is it the proper tow bar, you know,
11	you across to a number. Now there is another	11	things like that can come into these effects,
12	aspect there that we include in all our risk	12	and if you're getting the red and the yellows,
13	assessments that if you're caught between two,	13	then you know you've got a lot of mitigation
14	go to the higher number every time. That's	14	to put in place and do it right before you do
15	just to stay on the safe side. Once you come	15	it and bring it into operation.
16	up with that quantifiable number, then it'll	16 M	MS. FAGAN:
17	definitely put you in a put you in an area	17	Q. Okay, thank you. We've heard quite a bit on
18	where you need to know what to do on the next	18	the risk matrix, so if there's more questions,
19	page. So that's where you'd have to take it	19	I'm sure the group here will ask them, but as
20	and work a hard risk assessment on it, a	20	you said, most of the oil operators are
21	safety case study, and bring it down with	21	familiar with it, and I just wanted to know
22	mitigation through steps known which you have	22	how you apply it. So if you've covered that
23	in place within your operation, or what you	23	topic, I would like you to move to slide 70,
24	need to develop or purchase to help you engage	24	which is the safety reporting and you did
25	and bring it down.	25	mention that you do have a very good reporting
L	-		Dece 172 Dece 176

Fe	bruary 3, 2010	Multi-P	Page	Offshore Helicopter Safety Inquiry
	Pa	ge 177		Page 179
1	system. So can you please explain what is c	on 1	1	So in contrast where paper copies used to
2	slide 70?	2	2 1	travel around and not get touched for weeks on
3	MR. BANKS:	3	3	end because people were either travelling and
4	A. Okay, this is our electronic safety reporting	4	4 1	they needed to comment on it or help mitigate,
5	system. This has been a home built system	we 5	5 1	now the electronic system is e-mailed to
6	started a couple of years ago, taking all of	e	6 ]	people. If there's one event goes through
7	our paper copies, transferring it to	7	7 1	now, it's electronically generated to all our
8	electronic and it works through the back en	d 8	8 1	managers, right down to supervisor level, so
9	of our website where every employee throug	ghout 9	9 1	that they know, they have a contact that's
10	not only our company, but group-wide	10	0 :	something's happened and they get it real
11	companies, can have a look at can enter a	n  11	1 1	time. This, in fact, helps me because people
12	event, first of all, can have a look at	12	2	get back to me with, you know, corrective
13	existing that are being worked on, and they	/ 13	3 ;	actions or ideas for corrective actions. It's
14	can also they can also go into further	14	4 ;	also a way to let individuals report and know
15	details here, such as the safety managemen	t 15	5 1	that their concerns are being addressed in a
16	system and other things that we include, bu	t 16	6 1	timely fashion and reported back to them.
17	as you see, we have Cougar Helicopters he	re 17	7	Once completed, they are logged within the
18	for aviation events, health and safety events,	, 18	8 :	system and it has notifications that tell
19	and we've split that for a reason. There's	19	9 ]	people that it has been completed, as well as
20	different reporting processes to the two. We	e 20	D 3	a paper copy that every safety board has a
21	like to keep them separated, it's a tidy way	21	1 :	file or a record of all these. They can also
22	to achieve them as well as trend them.	22	2 :	see how far along the investigation has taken.
23	There's a lot of back end there's only one	23	3	If I have four specialists involved in
24	slide you see here, and that's the first	24	4 1	mitigating the event, then I can also have
25	reporting slide. There's many more that go	in 25	5	you know, if two are complete, it will
	Pa	ge 178		Page 180
1	and give us the ability to trend our events,	1	1	automatically click to the next guy saying,
2	to actually see where they sit. They have	2	2	you know, you've got three days left, you
3	reporting timelines that the event has to be	3	3	better get this done. So it's all
4	completed by, and I'll go to that next slide.	4	4	electronically generated and it's just a great
5	MS. FAGAN:	5	5	system.
6	Q. Okay.	6	6 MS. F.	AGAN:
7	MR. BANKS:		7 Q.	We've heard the terms, hazard, near miss,
8	A. So when an event you know, this could be		8	event, or incident. Could you explain do you
9	hazard, an incident, a threat to us. Anybody	Ģ	9	use those terms and is it these threat
10	1 0	10	0	levels, are these hazards, near misses, or
11	system. It comes to me, it comes to my	11	1	events, are they connected or are these two
12		12	2	different things?
13			3 MR. B	
14	5	14	4 A.	Each one has a definition. I'll give them
15	e .			that, but to us, every one of those ones that
16				you just said, they're all a concern. So to
17		17		me, an event can be a hazard, an incident can
18	C 1			be a hazard. You know, bring it all in and
19		19		let us decide what they are through
20				definition, but to just state incident or
21	to correct it fast, but it's not going to	21		hazard or you know, they have definitions,
22	ground the fleet, it's nothing that	22		but we want them in the system no matter what
23	potentially is going to kill people right	23		they are.
24	•		4 MS. F.	
25	Elevated, it just starts moving up the chain.	25	5 Q.	They all go in?

February 3, 2010	Multi-Pa	ge <sup>TM</sup> Offshore Helicopter Safety Inquiry
Р	age 181	Page 183
1 MR. BANKS:	1	even one of the panellists for the oil
2 A. Oh, yes.	2	operators had indicated they thought that
3 MS. FAGAN:	3	Cougar Helicopters had their own cards, but
4 Q. No matter what it is, it all goes in the	4	they didn't want to speak to it. So do you
5 system?	5	have cards in addition to the electronic?
6 MR. BANKS:	6	MR. BANKS:
7 A. Yeah.	7	A. We do, and it's on the next slide.
8 MS. FAGAN:	8 1	MS. FAGAN:
9 Q. And it might have a definition, but you're	e 9	Q. Okay, and can you explain 72, and I think
10 going to look at it and then assign a threat		there's a card that can be passed around the
11 level to that particular item?	11	room. In addition, the card is here, it's
12 MR. BANKS:	12	front and back. So can you explain your card
13 A. In the category, yes.	13	system? You have HEBBO. So what does that
14 MS. FAGAN:	14	stand for?
15 Q. No matter how it falls in the definition,		MR. BANKS:
16 whether it's a hazard or a near miss or an	-	A. HEBBO, yes.
17 event, any one of those three can end up i	-	MS. FAGAN:
18 any one of these other categories?	18	Q. And how do these work?
19 MR. BANKS:	_	MR. BANKS:
20 A. Yes, and, you know, we don't want to		A. It's another avenue of reporting that we
21 distinguish to a certain degree which is	20	didn't want to lose an issue or a concern.
22 which. We want to hear that there is an iss		Our electronic reporting system is an
and let's get it mitigated. You know, when		excellent venue for reporting, but sometimes
have, say, a slated hazard or that could b		if people are in between jobs and don't have
25 a concern by one, but not by another, but i		time to go to the computer, file it in and
· · ·	age 182	
	C	Page 184
1 it's a concern to him, it's a concern to me.		everything, we needed something strategically
2 So the threat levels are you know, they'r		located in the facility besides a piece of
3 quite important to us. Again if we're not	3	paper that was stuck under my door, that
4 sure, we go to the next level up. At the	1 F	concerns can be addressed right away. Instead
5 start of the event where somebody actual	-	of coming back after you know, I should
6 puts in a report, we give them the opportun	-	report that, but I've got something to do
7 of low, medium, and high. That gives me		right now, when I get back I'll do it, and
8 idea that if he came in and said high, but I		we've lost the opportunity if he forgets.
9 see it as a medium, then I get a chance to		It's just another avenue that we found assists
10 talk to him and say why did you classify it		us in capturing any critical issues that can
11 high, and if he educates me along that, wo		be addressed. It stands for Hazard Event
12 you know, he's right, and we'll risk assess		Behavioural Based Observations. It's
13 then and we'll bring it up and see if it's	13	primarily brought to us through dealing with
14 high or severe. So again severe is two day		our oil industry. I've seen a lot of their
15 with actuality of going straight to the	15	stop/start cards, focus cards, this kind of
16 General Manager or up top to the CEO, and	-	thing, and it was time that we put something
17 know, possibly grounding a fleet if I have		in place, not to the degree that they fill
18 concerns with it.	18	them in, this works as an avenue for
19 MS. FAGAN:	19	subsequent reporting to the electronic
20 Q. Okay. This is an electronic based system.	20	database. So if we look at it, it can be a
21 MR. BANKS:	21	behavioural based observation, a hazard, or an
22 A. Correct.	22	incident. You know, even if they don't know
23 MS. FAGAN:	23	what to call it, I just want you to fill in
Q. And do you have a paper system? We've		the blanks and leave blank where, but give us
about the cards, reporting cards, and I think	K 25	what the observation or the hazard you think

February 3, 2010	Multi-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
Pa	nge 185	Page 187
1 it is, let us work it out. It's very	1	that we're going to do everything we can to
2 encouraged as is all our reporting, you know	<i>N</i> , 2	bring out the good in it and get it corrected,
3 it's encouraged all the time, they're set in	3	don't be afraid of bringing certain incidents
4 certain places within the facility, so pick	4	just because they happened to you, bring them
5 them up, fill them in, and we'll deal with	5	forward so we can correct them. The just
6 them and get back to you on all issues.	6	culture, you know, we work in an area too that
7 MS. FAGAN:	7	we want everybody to know that participation
8 Q. Okay. The electronic system, which emplo	yees 8	in the safety program and our whole system is
9 at Cougar Helicopters have access to the	-	an attribute that every one of our employees
10 electronic system?	10	has, so this is known through and part of
11 MR. BANKS:	11	the safety culture, these people know this.
12 A. Every member.	12	It's not fabricated into a document, this is
13 MS. FAGAN:	13	living and breathing within our company.
14 Q. Okay, and the I believe you've pretty wel		
15 covered this, but if a card is filled in, it		We saw on the slide that you said they were
16 would go into the system, so if an employe		divided. Safety is two categories. I guess
17 had filled out a card and it ends up in the	17	it's all safety, but do you look at it from a
18 system, the employee could go to the	18	health environment issue, and then the other
19 electronic system and hit view and look at t		is an aviation issue? Do you have an
20 status as to how that particular event is	20	occupational health and safety committee?
being dealt with? Would that be a fair	20 21 MR. E	
22 statement?		We do. What we call it is different, it's a
23 MR. BANKS:	23	Safety Management System Committee.
24 A. That's correct.	24	Initially, a little bit of history here, we
25 MS. FAGAN:	25	used to have a Flight Safety Committee, and an
		Ç ,
	age 186	Page 188 AOHS, or Aviation Occupational Health and
1 Q. And so that's how it's reported back? That		Safety Committee. We had the two, and we
<ul> <li>2 would be how an employee would know</li> <li>3 Cougar Helicopters is dealing with whatew</li> </ul>		•
3 Cougar Helicopters is dealing with whatev 4 they reported on?	/er 3 4	said, well, why are we running two different committees when it's the same safety program,
	-	
5 MR. BANKS: 6 A. Yes.	5	so let's blend the two, bring not only operations together with the workers that are
	6	
7 MS. FAGAN:	d the	not necessarily engaged down the hanger or on the flight line, but pool everybody together
8 Q. Okay. You had mentioned non-punitive and		so we can educate each other and work issues
<ul> <li>9 words "just culture". It was either in your</li> <li>10 video or and I think it might have even</li> </ul>	9	together and raise any concern, and that's
0	10	•
11 been in the slide. What do you mean by "ju		where the initiative came and it's worked out
12 culture", and "non-punitive"?	12	great because we have representation from
13 MR. BANKS:	13	every department on one committee, not only
14 A. To us, it goes hand in hand; non-punitive		talking about health and safety or AOHS, but
15 being don't be afraid to report, people mak		we're talking about flight safety as well.
16 mistakes, we want you to bring forth any		
17 incident or something or concern that may here		So before when it was divided, I take it what
18 happened to you that we don't want happen	-	you're saying is there was not representation
19 to others. It's all about care for your fallow worker it's about it's about	19 20 MB I	from every department?
20 fellow worker, it's about it's about bringing things to light and not being afreid	20 MR. E	
21 bringing things to light and not being afraid		It was a little tough, yeah, we
22 of retribution. You know, there certainly is		
23 an area where people must know that there		On both committees, because you had two
24 penalty for, you know, busting procedures a 25 things like that but we want them to know		committees running?
25 things like that, but we want them to know	<i>w</i> 25 MR. H	SAINKS:

Fel	bruary 3, 2010 Mu	ulti-Page <sup>1</sup>	M Offshore Helicopter Safety Inquiry
	Page 1	89	Page 191
1	A. Right, and that second one, the Flight Safety	1	management. So we have one management co-
2	Committee, was also dealing with their own	2	chair and we have one employee co-chair,
3	internal OHS things within it, not just	3	trying to stay within the regulations with OHS
4	flight. So that's where it really told us	4	as well, and it's a great idea because you
5	that these guys are working one area, and on	5	don't want to overburden it with management
6	the other side we had strictly OHS. So to	6	where this is the workers forum that can bring
7	combine the two, we have representation right	7	the concerns up without feeling, you know,
8	across the departments from the organization.	8	that they may be stepping out of bounds or
9	MS. FAGAN:	9	something. So, you know, with that
10	Q. So where were the pilots and the maintenance	10	development came a lot of push out from me
11	engineers when the were they on the	11	because I started it up, and I said, well, you
12	Occupational Health and Safety Committee, or	12	know, the people are feeling now it's a little
13	were they on the Aviation?	13	biased because the safety guy is chairing it,
14	MR. BANKS:	14	so I backed off, and now I oversee it. I'm
15	A. They were on the Flight Safety side.	15	not participant, I'm an oversight for the
16	MS. FAGAN:	16	committee. I let the workers work this
17	Q. They were on the Flight Safety side, which	17	committee and, you know, there's no real plug
18	also dealt with their own occupation health	18	from safety, but if they need direction or if
19	issues, they weren't on the main general	19	they need assistance, then I'm readily
20	Occupational Health and	20	available.
	MR. BANKS:		FAGAN:
22	A. Right, and we saw the communication lacking		. Okay. Does Cougar Helicopters have any
23	there, so the need to bring them across just	23	involvement or positions on the Occupational
24	fulfilled what we needed for the SMS	24	Health and Safety Committees of the individual
25	Committee.	25	oil rigs or platforms?
	Page 1	90	Page 192
1	MS. FAGAN:		BANKS:
2	Q. When did you combine it so that it's all one		. No.
3	SMS Committee?		FAGAN:
4	MR. BANKS:		. If there's a safety event at either the St.
5	A. I'd say one year ago now.	5	John's base or on the helicopter or on the
	MS. FAGAN:	6	heliport the helideck on the oil rig, so
7	Q. Okay. So that would your your SMS includes	7	we've got St. John's base helicopter, or the
8	your Occupational Health and Safety Committee		helideck, to whom should the oil worker report
	MR. BANKS:	9	the safety event?
10	A. Right.		BANKS:
	MS. FAGAN:		. If he's an oil worker, I believe he's got his
12	Q. So that would include that committee would	12	own avenue and direction of reporting systems
13	include the pilots, the aircraft maintenance	13	to his company, but it's never not you
14	engineers, and somebody from every departmen		know, known that they can't report it to us.
	MR. BANKS: A. Yes.	15 16	In fact, I'd encourage it if it happened in our facility or on our aircraft that I hear
16	A. TES. MS. FAGAN:	10	about it from them. If not, then, you know,
	Q. Okay.	17	through ProAct and divisional health safety
	Q. UNAY.		advisors from the oil companies or our
18	-	110	
18 19	MR. BANKS:	19 20	
18 19 20	MR. BANKS: A. You know, when we structured it and developed	l 20	customers. That would come to me through that
18 19 20 21	<ul><li>MR. BANKS:</li><li>A. You know, when we structured it and developed it, we went along with the guidelines of OHS,</li></ul>	l 20 21	customers. That would come to me through that avenue.
18 19 20 21 22	<ul><li>MR. BANKS:</li><li>A. You know, when we structured it and developed it, we went along with the guidelines of OHS, so not only did we have pilot representation</li></ul>	l 20 21 22 MS.	customers. That would come to me through that avenue. FAGAN:
18 19 20 21	<ul><li>MR. BANKS:</li><li>A. You know, when we structured it and developed it, we went along with the guidelines of OHS,</li></ul>	l 20 21 22 MS.	customers. That would come to me through that avenue.

February 3, 2010	Multi-Page <sup>TM</sup>	Offshore Helicopter Safety Inquiry
Pag	e 193	Page 195
1 you advise the oil operators?	1 be	cause I believe that's part of your safety
2 MR. BANKS:	2 ma	anagement system that you spoke of in the
3 A. Okay, of what, of one of their employees?	3 vie	deo?
4 MS. FAGAN:	4 MR. BAN	KS:
5 Q. Of the safety event, something that may hav	e 5 A. Ai	nd quality, yes.
6 come to the attention of Cougar Helicopters.	6 MS. FAG	AN:
7 an event that happened at the base? It might	7 Q. A1	nd quality. So can you take us through your
8 not be their employee, it may just be an	8 ov	vn processes in-house?
9 accident.	9 MR. BAN	KS:
10 MR. BANKS:	10 A. Ol	kay, we have we have four departments that
11 A. Oh, okay.	11 ha	ve auditing plans throughout the year. We
12 MS. FAGAN:	12 ha	ve Flight Op, flight operations is one set
13 Q. Let's say somebody slipped say, an oil	13 of	internal audits. There's SMS, which is my
14 worker slipped at the St. John's base?	14 sy	stem, as well as Quality ISO 9001/20008,
15 MR. BANKS:	15 wl	nich is again my responsibility, and then we
16 A. I got it.	16 ha	ve Quality Assurance that audits their area
17 MS. FAGAN:	17 of	the maintenance. Now you must understand
18 Q. Okay.	18 th	at my area is regulated different than
19 MR. BANKS:	19 Fl	ight Ops would be because they're Transport
20 A. I have direct contact with their health safety	20 Ca	anada, and maintenance would be the same
and environment managers. I would certain	ly 21 thi	ing, they're under the umbrella of Transport
22 go that route. I'm obligated as well that if	22 Ca	anada. So my ISO 9001/2008 doesn't dig too
23 one of our employees has a lost time acciden		r into that because it's already highly
24 or incident, or a medical treatment case, that		gulated. There are areas of ISO that do
25 I immediately notify logistics managers, as	25 co	nnect into purchasing, product realization,
Pag	e 194	Page 196
1 well as my reporting to their HS&E people.	1 that	at kind of thing. So there's a little bit
2 MS. FAGAN:	2 th	at I get into there with probably stores and
3 Q. So when you say if something happens to		librations, but not on the actual
4 Cougar employee, Cougar's logistics manag		aintenance procedures. That's already highly
5 is that who you		gulated by Transport Canada. So they'll
6 MR. BANKS:		nduct their own audits, Flight Ops, again
7 A. No, no, to our customers.		ansport Canada, highly regulated, they will
8 MS. FAGAN:		cus on their own audits, and myself with my
9 Q. So if something happens to a Cougar employ		dit plan. So these are constant and
10 you report that to the oil operators as well?		roughout the year. Each of us have a system
11 MR. BANKS:		at it's all collected in one area and goes
12 A. That's right.		Q5 Systems, which is a local company in
13 MS. FAGAN:		wn that in the last year we've utilized and
14 Q. Okay. The next area is the auditing, and you		ed some of their software that is just a
15 had spoken about internal audits and external	-	eat way of pulling it all together. You
16 audits, and for the information of the		now, the oversight from the three of us and
17 parties, Exhibit 181 is an audit summary. W		e meetings, and you know, there's an
18 have not reproduced the entire summary in the		vful lot of audits going on, so we have a
19 slides. In the slides, we have only		bod judge of where we sit with them and we're
<ul> <li>20 reproduced the internal audits for '09 and the</li> <li>21 external audits for '09. So the history a</li> </ul>		top of them at all times. It's certainly
		oversight that we've developed over the st couple of years that does us well.
<ul> <li>22 little further back is in the exhibit, but we</li> <li>23 just thought it would take up too many page</li> </ul>		· ·
to list all of the auditing, and I would like		o on slide 73 and 74, there is a list and the
25 you to first explain the internal audits	-	rson responsible is the quality assurance
25 you to mist explain the mornal adults	25 pc	assurance is the quanty assurance

February 3, 2010	Multi-Page	M Offshore Helicopter Safety Inquiry
H	Page 197	Page 199
1 manager and we're both in, say, the first tw	wo 1	the international standards organization, so
2 is January '09 and one is the hanger and c	one 2	that when the registrar comes in and he audits
3 is the aircraft. So the heading is "Internal	3	us, then we understand and he understands that
4 Audits", so can you tell us what is compris	sed, 4	we're doing everything, abiding by this book,
5 say in those two items? They're both	ı 5	regulations and internal auditing would catch
6 happening in the same month, what's goin	ng on 6	any deviations. So it's just another
7 there?	7	oversight to ensure that, you know, we are all
8 MR. BANKS:	8	on board and nobody straying from different
9 A. Right, that's part of his audit plan where h	e 9	standards.
10 would one month work at that aspect of	the 10 MS. I	FAGAN:
11 operation, audit it to his checklist and the	11 Q.	Okay. Slide 75 isthe first two were quality
12 next month would be carry on, it's on	a 12	assurance manager, what is different about
rolling plan, so he has all areas that he	13	these, it has a different person responsible,
14 needs to cover broken down in a 12-mo	onth 14	is that you?
15 period.	15 MR. 1	-
16 MS. FAGAN:	16 A.	That's the director of safety management
17 Q. Okay, what is the reporting process for th		systems, that's myself, yes.
18 results of these internal audits and	18 MS. I	
19 inspections? What happens with the resul	ts? 19 Q.	And what arethese are internal audits, I
20 MR. BANKS:	20	take it these are in addition to what the
21 A. Well, you know, depending on the depart		quality manager is doing, and what are these
that would be brought up throughhis direction		audits?
23 of maintenance would end up with the res		BANKS:
as well as, you know, it would be brought		These are, like you said, internal audits. If
25 higher level in the manager of where we s		you see the first one, that is Halifax pre-
	Page 198	Page 200
1 and management review, gets to review	all 1	start-up audit, so that's a SMS audit that I
2 audits at year end. So we break it down a		conducted in Halifax before we started
3 if we have a good review from a team	of 3	operations with EnCana over in Halifax
4 managers, that is part or our manageme		FAGAN:
5 review and they can see all activity that's	5 Q.	Okay, and then YYT is St. John's, so some of
6 happened within the year.	6	these are in different areas.
7 MS. FAGAN:	7 MR. 1	BANKS:
8 Q. Okay, you also mentioned the quality	y 8 A.	Yes.
9 management system, ISO 9001 and that has		FAGAN:
10 entered as Exhibit 180, how does the qual		They're not all St. John's.
11 management system ISO 9001 fit into thi	s 11 MR. 1	BANKS:
12 auditing, the SMS and this auditing program	m 12 A.	No, this is global.
13 or does it fit, is there a connection?	13 MS. H	-
14 MR. BANKS:	14 Q.	Okay.
A. Well it's a certification on its own, but it's	15 MR. 1	BANKS:
a group of systems and processes and		Just like here, you know, we still have the
17 procedures that identify how our operati		same procedures and processes say in the Gulf
18 works, so to audit against ourselves on ISC		of Mexico, North West Territories and so I go
19 go through all departments and make sure		out and actually audit those facilities as
20 we're doing exactly what our book says.		well and all the operations, as do the qualify
21 there's changes to our processes, changes		manager and the director of flight ops or his
22 occur in our manual as well. It's just a wa		chief pilot. Again, it's just another sense
23 of saying that this is a set guide of	23	of oversight.
24 procedures and processes that must b	e 24 MS. H	C C
25 followed. We don't deviate from this, it'	s 25 Q.	So the other directors will also do auditing

February 3, 2010	Multi-Pag	e <sup>TM</sup> Offshore Helicopter Safety Inquiry
	Page 201	Page 203
1 or go with you to audit?	1 M	S. FAGAN:
2 MR. BANKS:	2	Q. Okay, and how long do the audits take on
3 A. Yes, sometimes with me; sometimes when the	ey're 3	average, the external?
4 down there doing other things, they'll put	4 M	R. BANKS:
5 their audit in as well, but, you know, no	5	A. Anywhere from one to five days.
6 longer than on an annual basis, that's for	6 M	S. FAGAN:
7 sure.	7	Q. Okay. How often does Transport Canada audit
8 MS. FAGAN:	8	Cougar Helicopters?
9 Q. Okay, now I'd ask you to move to the external	l 9 M	R. BANKS:
10 audits, and what do you mean by an external		A. Normally annually, once a year, sometimes
11 audit?	11	twice.
12 MR. BANKS:		S. FAGAN:
13 A. Well an external audit would be anything that	13	Q. And how long does the Transport Canada audits
14 is not completed internally by ourselves.	14	take?
15 There's, you know, they would have the	_	R. BANKS:
16 regulatory through the government agencies,		A. Again, three to five days.
17 Transport Canada, Transportation Safety Boar		S. FAGAN:
18 we have, you know, there's a number of areas		Q. Okay, we had heard from the oil operators that
19 there. Then we have customary audits, so it	19	Exxon Mobil has an aviation expert, there are
20 could be our customers from all operations, it		letters and information in the HOTF report, so
21 could be down the Gulf of Mexico that not on		those audits, those annual Exxon audits, how
22 audit our operations down there, but they com		long do they take?
23 up to headquarters to audit us up there to		R. BANKS:
24 make sure up in St. John's, so they make sure		A. It varies, but normally two to three days and
25 everything we're doing up there is in line	25	the good thing there is we're on very good
	Page 202	Page 204
1 with down in the Gulf, just as an examp		terms with them, so I mean, it's a shared, not
2 Then we have all of our customers in town		only audit but education to each other.
3 who are QHS&E, which is Quality Health S	-	They're a wide group of experts and we enjoy
4 & Environment auditing us, as well as the		their presence.
5 aviation advisors, so we have that side of the base as well. Then we have ISO Pagist		S. FAGAN:
<ul><li>house as well. Then we have ISO Registr</li><li>which I spoke about earlier and they als</li></ul>		Q. Would you consider it a resource - R. BANKS:
		A. Oh yeah.
<ul> <li>perform audits on it and then Transport Ca</li> <li>and other agencies.</li> </ul>		S. FAGAN:
10 MS. FAGAN:	10	Q. Gain information from them.
11 Q. We have had entered as exhibits one Tran		R. BANKS:
12 Canada audit and a couple of the other and	•	A. For sure, with all our audits, I mean, we
audits that are prepared by Exxon Mobil a		encourage a new set of eyes to come into our
14 believe we also had a summary, not neces		operation and pick up things possibly that we
15 the full audits for the oil operators, but at	15	may not be seeing, so it's all about
16 least the summary or the results of audits		proactive.
17 then the last one that was entered was a		S. FAGAN:
18 summary that was contained in the Power		Q. Okay, and the Husky audit that was also
19 of Husky. So, you know, that's smatterin		referred to in their PowerPoint, do you recall
20 that's four, your list is much longer than	-	how long that one would have taken?
21 four, can you give mehow many audits		R. BANKS:
there been since 2007, last three years,		A. I don't know which one we're talking about.
<ul><li>external audits?</li></ul>		S. FAGAN:
24 MR. BANKS:	24	Q. Oh, well perhaps it's unfair because you may
A. We've had 27 external audits.	25	not recall each individual one.

February 3, 2010	Multi-Page	<b>Offshore Helicopter Safety Inquiry</b>
P	Page 205	Page 207
1 MR. BANKS:	1	know, no non-conformances, but opportunities
2 A. January '09, is that what we're talking abo	out? 2	for improvement, so you know, things that
3 Well, with any of them, that would be-	- 3	we'll look at and see if it is in our scope to
4 Contrail Aviation, they're a third party an	d 4	add or not and move forward. You know, if we
5 yes, you know, we've had three with him	this 5	were to act on every one of the improvement
6 year, I guess, so he's a knowledgeable	6	opportunities, we have a really good look at
7 individual.	7	it, but we don't want to be changing
8 MS. FAGAN:	8	necessarily all of the time too, we need
9 Q. Okay. And what was the total of interna	al 9	people to understand our procedures and our
10 audits since 2007, do you know?	10	way of dealing with things. If you
11 MR. BANKS:	11	interchange so rapidly then, you know, you
12 A. Twenty-five.	12	could be adding risk, so we really scrutinize,
13 MS. FAGAN:	13	have a good look at them and if it works for
14 Q. What resources are needed during an au		us, then we'll put them in place. And
15 process? If Cougar Helicopter is being		normally they're very good, you know, they're
audited and it's two days, five days, wha		good improvement opportunities that we'll get
17 does it take on Cougar's part to respond a	nd 17	around to and if so desirable, we'll put them
18 deal with the auditing process?	18	in place right away.
19 MR. BANKS:		S. FAGAN:
20 A. We've pretty well got it down to a science		Q. But non of them are non-conformance, so if it
as a team, we usually have myself, a quali	-	was a non-conformance issue, then -
22 assurance manager from engineering, dire		R. BANKS:
23 of flight ops and the chief pilot, director of		A. It's been quite awhile since I've seen a non-
24 maintenance and we'll meet to pre-audit, s		conformance, yeah.
25 set it up is one thing, there are some		S. FAGAN:
	Page 206	Page 208
1 cancellation of trips and things because, ye		Q. Is there anything that can be done to improve
2 know, we're on their time zone too, so yo		the auditing process?
3 know, we have to pool it together. Everyb		R. BANKS:
4 has to be present, we don't want anythin	0	A. We're in discussions now with our customers,
5 lacking, you know, to have representativ		as well as others, but mainly our customers
6 there that aren't used to the auditing taking		and I think the best approach forward and
7 your spot is not desirable, so we try and, yo		these discussions have been for the last six
8 know, be around for it all and there's day		months, but to find a time zone that our team
9 that will, okay, the set up, then there's the	9	can get together and book once a year and, you
10 actual audit days and then there's, you kno		know, have a two-week period or a week period
11 the post audit get togethers to ensure that		where teams of audits or customers conjoined
12 we've closed out.	12	can come in and audit during that timeframe
<ul><li>13 MS. FAGAN:</li><li>14 Q. Because it's not just the two days or the five</li></ul>	ve 13	and, you know, have a really good look at the operations and, you know, it can be called a
14 Q. Because it's not just the two days of the IN 15 days, there may be things to respond to.		joint audit through all levels and we'd be
16 MR. BANKS:	15 16	available for that time and welcome it and not
17 A. Oh no, no, yes, there's many meetings after		take so much oversight away from the
17 A. On no, no, yes, mere's many meetings and 18 that to clarify things, yes.		operations. Get it done in one timeframe and
19 MS. FAGAN:	19	we'll move on from there.
20 Q. With all of this auditing, has there been an		S. FAGAN:
20 Q. With an of this additing, has there been an 21 significant or major findings, I mean, ho	·	Q. This list here is only for 2009 and I would
22 would you category the findings or the rest		think I counted 15 maybe or somewhere around
23 of the auditing?	22	15, 17 audits, would that be about the right
24 MR. BANKS:	24	number? Would it be in excess of 10 or 15
25 A. In my eyes and my experience, no, there's		audits for 2009? This list here, are these

February 3, 2010	Multi-Page <sup>1</sup>	M Offshore Helicopter Safety Inquiry
	Page 209	Page 211
1 all individual audits?	1	people who were working on the aircraft who
2 MR. BANKS:	2	were working with helicopter flight data
3 A. Yes.	3	monitoring, our traffic staff engaging, you
4 MS. FAGAN:	4	know, the flights with dispatch, flight
5 Q. So if they're 15 and they take 3 days,	that's 5	following, ramp staff and security agents,
6 45 days.	6	just to take it to that next level, as well as
7 MR. BANKS:	7	rescue specialists. We just needed to be
8 A. Okay.	8	above the curve of where we were before, you
9 MS. FAGAN:	9	know. I think initially we were thinking,
10 Q. Of auditing, if they're all separate and	then 10	well it's getting to a point where we have to
11 you have all the start -	11	research this because of, you know, the laws
12 MR. BANKS:	12	of Canada and protection of individuals, so we
13 A. Right, and that's why discussions ha	ve been 13	researched it and found out it can be done and
14 going on and I think we're going to a		grouped them together and came up with a good
15 that, you know, as early as this mornin	-	list throughout our organization that we will
16 talking to one gentleman that, you kr		test now on a monthly basis and again with our
17 said he's up and working on it now an		providers, Atlantic Offshore Medical Services,
18 going to have a good look at it. I think	-	AOMS, it's a service they provide to us both
19 agree as well, you know, they see that	-	in Halifax and here at our operations that
20 know, it maybe getting to the point		electronically generates a name. We give them
21 that we need to put in place an avenue		an employee-base list of all of these
22 time zone like that and I, you know,		positions and they screen, well they screen,
agreeable. We just had a joint audit b	-	get the name and come up and that way we're
24 customers, QH&S and there was three of		not involved, the safety department is not
25 came in, they worked together and I t	hink it 25	selecting, it's an outside non-bias selection
	Page 210	Page 212
1 solidified a lot of things and we had a	-	and it's conducted once a month.
2 good audit and we learned a lot from i		MMISSIONER:
3 MS. FAGAN:		). Do you mean a name in each category of -
4 Q. Okay, thank you. I have one more c		BANKS:
5 area but it's not going to matter bec		A. No, just one individual, it could be any of
6 there is one more section to go anywa		those -
7 can break now and then we'll be back		MMISSIONER:
8 (BREAK)		Q. Just one name, I see.
9 MS. FAGAN:		BANKS:
10 Q. The last section of questions under the	•	A. So we're getting ourselves 10 percent a year
11 management system has to do with o	-	is whatwell, 10 percent a month, so that's
12 alcohol testing and I believe there's a		what we're looking at.
13 78. And could you pleasethis is just		FAGAN:
14 the aspects of your safety managemen	•	b. What do you mean, 10 percent a month?
15 could you please describe Cougar Hel	-	BANKS: Wall through contract it stimulates that 10
16 randem drug and alcohol testing pro		A. Well through contract it stipulates that 10
17 your process?	17	percent must be tested on a yearly basis, so
<ul><li>18 MR. BANKS:</li><li>A. Right, the randem testing has been in</li></ul>	effect 10	in that year we get 10 percent. One individual per month with the number of
		employees we have.
		FAGAN:
21 Initially we had pilots only and then 22 contract and how we wanted to move		AGAN: 2. So it would be 10 percent of your workforce?
22 contract and now we wanted to move 23 with safety management, it really can		BANKS:
		A. That's correct.
25 positions, not just the air crew, but	25 MS.	FAGAN:

February 3, 2010	Multi-Pa	age <sup>TM</sup>	Offshore Helicopter Safety Inquiry
P	Page 213		Page 215
1 Q. So if you had a much larger workforce, the	ere'd 1	A. Yes.	
2 be more per month?	2	MS. FAGAN:	
3 MR. BANKS:	3	Q. Woul	d that be fair?
4 A. Right.	4	MR. BURT:	
5 MS. FAGAN:	5	A. In the	background regards to different topics
6 Q. And have you had any situations where a p	pilot 6	that d	id come up, of course, you know, we were
7 or a dispatcher, maintenance engineer ha	as 7	actua	lly answering and structuring the whole
8 failed the alcohol or drug test?	8	thing	at the same time.
9 MR. BANKS:	9	MS. FAGAN:	
10 A. No, never.	10	Q. Okay	. Did you make any presentation or have
11 MS. FAGAN:	11	any n	neetings or deal with the HOTF group prior
12 Q. The last section is the changes since the	12	to the	questions and how long was the HOTF
13 return to flight after the March 12th accide	ent 13	proce	ss and what was your involvement in the
14 and some of the changes that have been br	ought 14	proce	ss itself, beyond the question section?
15 forward by Cougar Helicopters and some	of 15	MR. BURT:	
16 we're going to address some of the	16	A. Right	, well it was several weeks. We had
17 recommendations from the return to servi	ice, 17	meeti	ngs beyond just analysing the question
18 the HOTF report, so the first thing and I	18	perio	d, we had presentations absolutely from
19 believe Mr. Burt is going to handle this se	et 19	Coug	ar's point of view or Cougar's information
20 of questions. I'd just like you to set it up	20	and w	e met with their team several times as we
21 for the group before we get into the chang	ges 21	devel	oped the best strategy to provide the
22 and I'd like to know how Cougar Helicop	oters 22	inform	nation and a clear and open format and
23 was involved in the return to service proce	ess 23	you l	know, it was a lot of information to
24 after March 12th.	24	proce	ss and we wanted to make sure that it, as
25 MR. BURT:	25	a grou	up and we were a group from beginning
P	Page 214		Page 216
1 A. Well together with the HOTF team, w	e 1	right	to the end, as a group we communicated
2 collaborated on analysing the questions th	at 2	clearl	y, openly as best we could.
3 came from the employee group from offsh	ore and 3	MS. FAGAN:	
4 onshore. We took that information and h	nad 4	Q. Okay	, and when you mean as a group, do you
5 several meetings as we distilled the	5	mean	Cougar Helicopters and the oil operators
6 questions; in other words, there was lots o	of 6	as a g	roup worked together?
7 groups of similar questions, we took that a	nd 7	MR. BURT:	
8 developed a mandate.	8	A. Right	, that's exactly right.
9 MS. FAGAN:	9	MS. FAGAN:	
10 Q. So are youwe saw in the HOTF report the	ere 10	Q. Were	the pilots and employees at Cougar
11 were three hundred and fifty or maybe the			opters, did they submit questions, you
12 hundred and sixty-five questions that were	-		, the 365 questions were their questions
13 forward, are those the questions that you'r		-	f that 360 questions?
14 talking about?	14	MR. BURT:	
15 MR. BURT:	15		hat was the employees of theand family
16 A. That's exactly right and we spent actual	-		pers of the offshore oil and gas companies.
17 hours pouring over those and making sure			ad our own process at Cougar.
18 we grouped them and tried to be as efficie		MS. FAGAN:	
19 as possible.	19		what was that process?
20 MS. FAGAN:		MR. BURT:	
21 Q. Okay. In addition to the questions, this wa			ook our different areas of discipline in
22 your, I guess contribution to the HOTF repo			organization, flight operations,
23 was to help with the answers or provide so			enance, our rescue specialists and our
24 of the answers.	24		nistration and we assembled a team out of
25 MR. BURT:	25	that g	roup and that team was given a mandate

Fel	oruary 3, 2010	Multi-P	age	<sup>TM</sup> Offshore Helicopter Safety Inquiry
	Pa	ige 217		Page 219
1	to represent the company at large and we	e   1	l	we now hadand we also added the manufacturer
2	wanted to collect all the questions, inquiries	8 2	2	on this, to revise a dissent profile to be as
3	we had from that and we took those six-	- 3	3	efficient and lined up with the manufacturer
4	because it was a little bit of a similar	4	ļ	as possible for, you know, for these
5	analysis we did within our own compan	y. 5	5	emergencies. So we developed the checklist
6	Again, we boiled that down to questions a	nd 6	5	procedure and revised dissent profile and
7	had an opportunity to speak to the group a	t   7	7	together with Transport Canada, we took that
8	large. That team took that information and	we 8	3	and went down to West Palm Beach in a
9	want forward and disseminated that information	ation 9	)	simulator. And so we took it and used it in
10	to our employees and it was a very effectiv	e 10	)	the simulator in a similar events as we
11	process.	11		replicated March 12th, had a look at the
12	MS. FAGAN:	12	2	scenarios there, different, you know, main
13	Q. The oil operator's presentation included a	13	3	gear box scenarios and we tested for those
14	slide onand in particular it was 118 of the	14	ŀ	procedures and that actually was very, very
15	joint panel, and that listed the changes that	15	5	validating of where we went with it. So
16	occurred at Cougar Helicopter prior to	16	5	again, we took those back and brought those
17	returning to flight.	17	7	back to our pilot staff and as required by
	MR. BURT:	18		Transport Canada, any changes we make like
19	A. Right.	19		that, they have to have the training done and
	MS. FAGAN:	20		annotated before we do that.
21	Q. And I understand that slide 79 has some o			. FAGAN:
22	those items restated and can you please	22		Q. Okay, thank you. The last one is the change
23	describe, from Cougar's perspective, what t			of the location of the auxiliary tank. Now
24	changes were and then we'll get into the			that issue has been dealt with, I understand
25	recommendations of the HOTF report which		)	it has been changed, the presentation by the
		lge 218		Page 220
1	in addition to these items.	1		joint panel indicated that it had been
	MR. BURT:	2		changed. I understand it's certified to be on
3	A. Yes, and certainly I recognize this, I was	3		either side of the aircraft, is that correct?
4	involved in numerous presentations. So bas			BURT:
5	upon the information we had learned as we			A. Correct or two tanks on, you know, one on one
6	to the return to service process, we had a	6		side, one on the other, together.
7	revision of our emergency procedures and			
8	normal checklist. Now we got together with Transport Canada, we sat with them, looked			Q. Okay. One issue that hadn't been covered but
9	this checklist and said is there a, based upor			it has been raised is could you explain why the auxiliary tank is located inside the
10	what we know now today, is there a mo			-
11 12	efficient or more relevant way we can			aircraft and not mounted externally?
12	structure and add to the content. So with	12		A. Sure.
13	Transport Canada, we sat down and said y	-		. FAGAN:
15	what we effectively did, we moved, for exa			Q. Could we just take these tanks and strap them
16	some of the emergency section forwarded in	-		to the outside instead of having them inside?
17	checklist, we had a couple of comments t			BURT:
11/	clarify things, and then we took that togethe			A. Right. That's a question that we really, you
19	and I'll combine the two of them if you don			know, obviously we own that answer because we
20	mind.	20		developed this tank, "we" being Cougar, the
	MS. FAGAN:	20		operator developing the spec and the need,
22	Q. Yes.	22		together with our sister company, VIH
	MR. BURT:	23		Aerospace and a team throughout North America
24	A. The first two points with a revised dissent	24		as we developed it and we said, you know, what
25	profile. Again, based upon the knowledge t			do we want to add additional range to the S-

February 3, 2010	Mu	lti-Page <sup>TI</sup>	M Offshore Helicopter Safety Inquiry
	Page 22	1	Page 223
1 92. We've	e already talked about why we need to	1	cover some of the recommendations, we're not
2 go further	with the aircraft, so we surveyed	2	going to cover all of the recommendations.
3 the aircraf	t and realized that on the exterior	3	There were 18 in total and some of the
4 of the airc	raft there was really no real	4	recommendations have been dealt with
5 estate that	was available on our analysis that	5	throughout your presentation, such as
6 wouldn't	either block an exit, be quite	6	recommendation No. 2 was Cougar safety
7 onerous to	the aircraft and from, again, from	7	management system and we just heard that the
8 our design	n engineering point of view and	8	system has now been fully implemented, so we
-	e's a return on time and effort and	9	need not go back down through some of them.
	t as to what you can do on the	10	But there are a couple of the recommendations
	an aircraft, so clearly our	11	that I don't believe were covered in the main
	as to design an appropriate	12	presentation so far and I'd ask you to look at
-	lly oriented auxiliary fuel tank	13	slide 80. Slide 80 covers the floats, we had
	de the aircraft. So we came to	14	heard that consideration is being given to the
	ision and we designed that tank to	15	installation of additional floatation on the
	nd greatest FAR/JAR 29 compliance	16	S-92 to allow sea state 6 capability and can
	It's the same build standard as	17	you tell us is consideration being given to
	chnology aircraft.	18	such a floatation system?
19 MS. FAGAN:		19 MR.	
	nd that if there's anything on an		Yes, again as a team we talked about this
	ansport Canada's witness said that	21	together and what I mean is the HOTF committee
	nything on an aircraft, it must be	22	and Cougar, as a team we talked about this.
	y Transport Canada.	23	Cougar brought forward the technical
24 MR. BURT:		24	background as to what is available in regards
25 A. Uh-hm.		25	to what is called enhanced emergency
	Page 22		Page 224
1 MS. FAGAN:	compating you designed not	1	floatation as verses what we had and have right now is the emergency floatation. When
2 Q. So this is 3 Sikorsky?	something you designed, not	2	we discussed this, I think it was really
		3	within a 24 hour period it was a decision made
4 MR. BURT: 5 A. Yes. No.	we designed this and used an	4 5	by all three operators to go ahead and
	g team and a team of manufacturing	6	immediately order this enhancement, it's
-	cluding our own expertise and then	7	there, it was just approved for the North Sea
-	it to Transport Canada for approval.	8	and employed in the North Sea, so therefore
9 MS. FAGAN:	it to Transport Canada for approval.	9	they asked us to order it and we did so.
	I I believe you indicated it's		FAGAN:
•	be located on either side and		And so all three oil operators decided, I take
	cation is Transport Canada?	12	it fairly quickly to order the floatation,
13 MR. BURT:		13	they've been ordered, do you have a date when
14 A. That's cor	rect.	13	you expect the floats to be installed and how
15 MS. FAGAN:		15	long will it take to install?
	ng did this process take?	16 MR.	-
17 MR. BURT:	- •		The floats have been ordered and they should
	took us a total of almost a year	18	be available for installation around June,
	juarters to develop this tank.	19	July timeframe and what we're doing right now
	- •	20	is actually opening up slots of aircraft, it's
20 MS. FAGAN:			· · · · · · · · · · · · · · · · ·
20 MS. FAGAN:	o the tank and get the certification?	21	about a ten-day installation process for each
20 MS. FAGAN:	the tank and get the certification?	21 22	about a ten-day installation process for each aircraft, but that decision has long been made
<ul><li>20 MS. FAGAN:</li><li>21 Q. To develop</li></ul>	o the tank and get the certification?		
20 MS. FAGAN: 21 Q. To develoy 22 MR. BURT:	o the tank and get the certification?	22	aircraft, but that decision has long been made

Feb	ruary 3, 2010 M			ge <sup>™</sup> Offshore Helicopter Safety Inquiry
	Page	225		Page 227
1	Q. Okay, and how will the float modification		1	top of that, some of our experience
2	improve safety?	2	2	internationally we brought forward in a
3 N	IR. BURT:		3	presentation, again as a group, and again it
4	A. The floatation system, first of all, is an	4	4	was well received and we said it's our
5	emergency floatation. This aircraft is not an	4	5	standard now moving to those three people in a
6	amphibious aircraft, it's for emergency	6	6	search and rescue format. I think we talked
7	situation. The enhanced emergency floatation		7	about that, the cabin attendant, the hoist
8	basically increases stability on the water, so	8	8	operator and the rescue swimmer. And they
9	that's the measure of how it does increase the	ģ	9	agreed to move toward that scenario and we
10	safety and the status of an aircraft that's on	10	0	hired, at their approval and concurrence,
11	the water.	11	1	additional staff to do that.
12 N	IS. FAGAN:	12	2	On top of that, what we did do is instead
13	Q. Okay. The next recommendation that I would	13	3	of having the search and rescue crews mingle
14	like you to cover is number 11, which is the	14	4	through the regular crews flying the line
15	current SAR arrangement. It says here that	15	5	passengers, they fully supported us in
16	"the last formal assessment was done in 1997	16	6	retaining dedicated pilots and dedicated
17	and that consideration should be given to	17	7	rescue specialists and that had a significant
18	response time in night flights." I take it	18	8	increase in the numbers and there was a cost
19	that there was discussion about these issues	19	9	increase with that and that's been implemented
20	and I do know that the oil operators'	20	20	and that's in effect now.
21	presentation included information that the	21	1 N	IS. FAGAN:
22	training time has been increased. So can you	22	2	Q. And when you say a cost increase, this is a
23	please describe this whole process?	23	3	cost that's being borne by the oil operators?
24 N	IR. BURT:	24	4 N	AR. BURT:
25	A. Sure.	25	5	A. Yes.
	Page 2			Page 228
	IS. FAGAN:			IS. FAGAN:
2	Q. What was being considered and what		2	Q. Okay. So they're paying for these additional
3	enhancements have been made and what		3	enhancements?
4	enhancements are planned?			IR. BURT:
	AR. BURT:		5	A. All those additional changes is borne solely
6	A. And I think it's good to understand that it's		6	by the three operators, yes.
7	not an isolated process that we see here.			IS. FAGAN:
8	Right since day one in 1997, when we started		8	Q. You said it was a phased in approach, so I -
9	here, we've always had a process of engaging			IR. BURT:
10	all of the oil operators in continuous	10		A. Right.
11	improvement opportunities. This is another			IS. FAGAN:
12	example of that. We've actually succeeded	12		Q I'll let you carry on with what else is
13	together by using this strategy.	13		planned. MR. BURT:
14	In fact, this strategy of enhancing our first response started in December 2008.	14		
15 16	That's when we were having discussions about			A. Sure, and that's phase one. Phase one is that we have changed our posture together as a
17	this, and these are fallouts out of what we	. 17		group. We have dedicated crew. We have an
17	agreed would be a three-phase enhancement	18		increased flight training hour scenario now.
18	program. So again, it was the first quarter	19		Phase two for us is, again, following through
20	that through our discussions that again all	20		as we talked about the certification for auto
20	the operators unanimously agreed to increase	21		hover. So we've had discussions now for
21	our training hours to 40 hours. Now that was	22		months with the operators about auto hover and
22	based upon a detailed proposal from Cougar as	23		we've advised them that the certification is
23	to what we would do and how that would	24		pending. So in our discussions with them,
25	complement our first response program, and on			they have said that their intent is to follow
Ľ	- surprement sur mist response program, and on		~	

February 3, 20	)10 Multi	i-Pa	age	Offshore Helicopter Safety Inquiry
	Page 229			Page 231
1 through	n and acquire the auto hover for all of	1		current aircraft.
2 our aire	craft.	2	MS. FA	AGAN:
3 Now	I will say that when we purchased the	3	Q.	And however, you can't as you'd said
4 aircraft	and they were specked out in the	4		earlier, the aircraft is physically pretty
5 beginn	ing, all of the operators asked us to	5		well able to deal with auto hover.
6 make s	ure we had provisions for dual hoist and	6	MR. B	URT:
7 also pr	ovisions for auto hover, whether we	7	А.	Yes.
8 used th	em or not. So there was actually a	8	MS. FA	AGAN:
9 materia	l change to the aircraft to accommodate	9	Q.	You just can't actually use it until this
10 that, to	the point where if we went and	10		certification process we still have to wait
11 comple	ted our auto hover installation, it's	11		for the certification process?
12 really a	software change. That's all we have	12	MR. B	URT:
13 to do o	nce it's certified.	13	А.	Right, and you know, as IT people don't like
14 So we	e're looking forward to that time and	14		you to say it's just software, but it is just
15 again, a	all three operators are moving forward	15		software. But it's a certified level one
16 with th	e intent to employ that auto hover	16		software that will allow us to do these very
17 system		17		intricate approach patterns, control the hover
18 MS. FAGAN:		18		and all that, and of course, we do have to add
19 Q. So wh	en you say when you specked out the	19		that control pendant in the back for the
	, are you talking it's a while now,	20		rescue specialist and a few minor things like
	sterday we looked at the fleet	21		that.
22 transiti	-	22	MS. FA	AGAN:
23 MR. BURT:		23	Q.	Okay, and I think that would cover this
24 A. Right.		24		particular recommendation. The next item is
25 MS. FAGAN:		25		the there were two items. One was the
	Page 230			Page 232
1 Q. And th	here were a number of dates, and I	1		reenforcement of the seatbelt usage. I
-	we were back in at least three or four	2		believe Mr. Williams was going to speak to
3 years a	go.	3		this. It's pretty close to covered in any
4 MR. BURT:		4		event, but this was the recommendation.
5 A. Yes.		5		There's not a slide for it, but this was the
6 MS. FAGAN:		6		recommendation which dealt with ensuring the
7 Q. So are	you saying it was is that when the	7		correct usage of passenger seatbelts is
-	ng of the aircraft took place?	8		reenforced, and I believe this might have been
9 MR. BURT:		9		on the helideck or is this at both locations?
10 A. That's	when the discussion with all three	10	MR. W	/ILLIAMS:
11 operato	ors took place, and in that, we put	11	А.	It's a bit of both, at co-locations. Of
12 forward	d the growth, the potential of the	12		course, we're back talking about the new suit
	, and I think it was important for all	13		and making sure the seatbelt's attached over
	s we discussed with our customers to	14		the shoulder. So there's a process in place,
15 say, yo	u know, we should really maybe consider	15		if you notice by the video, when the
	wth of this, where are we going, and we	16		passengers are seated at the heliport, the
	t that time the trend was moving to a	17		ramp agents will go aboard to ensure that
	bist installation as a standard. So	18		everybody is fastened in properly and their
	ircraft has that provision. And we	19		seatbelts are fitting, and that same process
	hat, you know, auto hover would have	20		takes place offshore under the oversight of
	s somewhere in the future. So we	21		the HLO team. So when they refer to
	d a second radar altimeter and that's	22		reenforcing it, we went through a process and
	he only other hardware installation	23		you will find memos and documentation that we
	need to accommodate auto hover. So	24		made sure our people at the heliport were
	provisions are all embodied in the	25		clearly instructed to the proper way the
L		I		- <u>1</u> 1./

Februa	ry 3, 2010	Multi-	Page	Offshore Helicopter Safety Inquiry
	Р	age 233		Page 235
1	seatbelt should fit over those suits as well		1	been clear in my experience that the most
2	as offshore. So it was a joint incentive to		2	mature experience in the offshore aviation is
3	make sure that we really addressed the		3	clearly the North Sea and the Norwegian
4	seatbelts and before we close the door on the	hat	4	sector. I almost regard them as the same, the
5	aircraft and said good for flight, that we		5	UK and Norway. They've led in regulation.
6	made sure the seatbelts were securely faste	ened	6	They've led in standards, technology and also
7	to everyone, for sure.		7	volume of aircraft. They've got a long and
8 MS. F	AGAN:		8	mature history. Their regulatory agency has
9 Q.	Okay. The last slide is slide 82 and it has		9	embraced the development of standards and
10	to do with the location of the goggles and	I	10	research for years and I think without a
11	believe that this you don't really need to		11	question, without a doubt, that would be the
12	address 82. You can move to it, but the vie	deo	12	most significant place, the most reputable
13	and then the discussion after the video, it		13	place I would go.
14	was clear that the goggles are now moved	from	14 MS	. FAGAN:
15	under the seat to the location as depicted in	n l	15	Q. Okay, thank you. On the topic of emerging
16	the photograph.		16	safety practices and standards, what would you
17 MR. V	VILLIAMS:		17	see as emerging practices for aviation safety?
18 A.	Absolutely. The HOTF committee put for	ward	18	Where do you think the aviation safety world
19	many items and this was a great catch, for		19	is going, from helicopters' perspective?
20	want of better words, that it was difficult to		20 MI	R. BURT:
21	get to the goggles beneath the seat. So		21	A. And I've given that a lot of thought too.
22	together with our ops manager, in conjunct			5. FAGAN:
23	with the operations folks, we've been able			Q. Okay.
24	put them in an alternate location, making	-		R. BURT:
25	modifications to as you saw today, the		25	A. I bring my fixed wing background into this and
		age 234		Page 236
1	video, I think, just showed text to identify		1	I've always been quite perturbed about how the
2	and that's being redone. So the goggles an		2	rotor industry sometimes treats itself as
3	moved to a location right now that's easil	У	3	versus the fixed wing or airline industry. We
4 5 MG F	accessible to everyone.		4	are operating some of the most sophisticated
5 MS. F			5	aircraft in the world. These are large transport aircraft and we're transporting a
-	Okay, thank you. The last couple of questions, I believe I'll direct these to Mr.		6 7	number of a large volume of people in an
7 8	Burt and it's really looking to the future.		7 8	airline fashion. I think we need to
9	You know this Inquiry is looking at improv	ving	9	standardize our training requirements. If you
10	safety and we've heard quite a bit of	-	10	are flying even a medium to a large aircraft
11	information about your experience and wi		11	in North America, you're required to do
12	you operate. So if well, it's not if		12	training twice a year and qualify twice a
13	you're asked, I'm going to ask. We're look		13	year. Other places around the world, even in
14	at safety and improving safety. Where we	-	14	rotor craft, you are required to train twice a
15	you suggest we should look, as a group, f		15	year and certify twice a year. Right now in
16	best practices? I'm talking what areas of the		16	Canada, it is not a requirement. It's a
17	world would you suggest would be benefi		17	requirement to train once, and what I mean by
18	for best practices in helicopter		18	that is we'll go to the simulator, do our
19	transportation?		19	training, do our recertification. We do our
20 MR. E	BURT:		20	IFR recertification and our aircraft type
21 A.	And let me qualify that, because I am the	e z	21	recertification. But when I flew fixed wing,
22	chairman of an international offshore		22	you went in mid year and you also recertified
23	committee of operators, which oil compar		23	with and did a line oriented flight trip and a
24	and operators do attend. So it's near and		24	certification. That I believe should be
25	dear to my heart to speak to this point. It's		25	standard in our business, especially in this

Februa	nry 3, 2010	Multi	-Page <sup>1</sup>	M Offshore Helicopter Safety Inquiry
	Р	age 237		Page 239
1	offshore area.	U	1	training, we should be training in something
2 MS. I	FAGAN:		2	that represents an S-92, in push out windows
3 Q.	You have a fair history in this area and		3	and seats and seatbelts, and I'm you know,
4	you've seen a number of changes, I take i	it.	4	that's just clear to me, and I've done enough
5	Where would you see the industry going a		5	of them to speak to that.
6	know, perhaps where have we come from	? This	6	Just two more. I think that there should
7	number 11 recommendation says there h		7	be seriously looking at developing offshore
8	really been an assessment since 1997.		8	approach lighting systems. There really
9 MR.	-		9	doesn't exist anything that is a certified
10 A.	Um-hm.		10	offshore approach light. This is not the
11 MS. I	FAGAN:		11	green lights. This is a lighting system that
12 Q.	From the east coast, is there any other tren	ds	12	helps us approach the rig. We have conducted,
13	or anything else that we should consider?		13	together with our customers here, our oil
14 MR.			14	companies here, two different studies on laser
	Sure, absolutely. That was point one that	I	15	lighting and high intensity approach lighting,
16	made there.		16	which was a Hibernia initiative, and they have
17 MS. I	FAGAN:		17	helped us move that forward, but it's not just
18 Q.	Oh, point one, sorry.		18	a one industry one customer effort. It is
19 MR.			19	also a regulatory thing that we should be
	And I also feel quite strongly that right not	w	20	looking at.
21	that maintenance training and ongoing		21	And then finally, I think that our
22	maintenance training in Transport Canada	-	22	initiative for moving forward with a dispatch
23	not a regulated it's not stipulated in		23	system, yes, it's required in an airline, even
24	detail like the flight operations is. I think		24	a Dash 8, if you have more than I think it's
25	that needs to be enhanced and I think it needs	eds	25	three or four Dash 8 size aircraft, you must
	Р	age 238		Page 240
1	to be regulated. Maintenance, they perform	Ū.	1	have a dispatch system in Canada and the
2	very intricate and detailed work and they ha		2	United States. I see absolutely no reason why
3	no less of a reason to train as a pilot would.		3	we would not have a system like we have
4	In our company, we have taken a proacti-		4	implemented here together with Transport
5	approach to that and we've installed		5	Canada and have that as a broad base
6	individuals who it's their responsibility and		6	requirement for transport size rotor craft
7	programs to train. That's a proactive thing		7	aircraft.
8	with us, but I think it should be clearly a	,	8	And I think I feel better.
9	standard.		9 MS.	FAGAN:
10	I also believe that, like in the UK, that		10 C	2. Thank you very much. That is it for my
11	here in Canada there should be a SAR, a sea	rch	11	questions. I appreciate all the information
12	and rescue standard developed by Transp	ort	12	all three of you have given us. I'd like to
13	Canada as the CAA does.		13	thank you and your group, because there's been
14	Additionally, I think that, like the CAA		14	an awful lot of work and the directors of all
15	in the UK, that we should have an offshore	e	15	of your departments have spent hours and hours
16	standard developed in our Transport Canad		16	and hours. I finally said on the weekend I
17	under Transport Canada, and this again is		17	now know all the ins and outs of how to get
18	standards document. It's not a Canadian		18	around Cougar Helicopters' office and that
19	Aviation Regulations but it is a standards		19	only speaks to how much access you've given me
20	document.		20	and how much information you've given me. So
21	Additionally, I think that any of our		21	I appreciate that and the Inquiry appreciates
22	survival training facilities that we have, and	1	22	that.
23	institutions, should have specific design to		23	You're now going to be subject to
24	the type of aircraft that we're flying. If we		24	questioning by this group and I leave it to
25	are flying an S-92, when we do dunker	r	25	the Commissioner as to how he'd like to direct

February 3, 2010	Multi-Page <sup>TN</sup>	<sup>1</sup> Offshore Helicopter Safety Inquiry
Page	e 241	Page 243
1 and start that.	1	Military, which take off vertically and fly
2 COMMISSIONER:	2	like an airplane, but that's new technology.
3 Q. Before we go start that, just one observation	3 COM	MISSIONER:
4 I'd like to make and get your reaction,	4 Q.	Yes.
5 helicopters like the S-92 are what is called	5 MR. I	BURT:
6 "heavy lift", is that correct?	6 A.	That's a big leap, and understandably making
7 MR. BURT:	7	big changes like that is we talked about
8 A. Yes, heavy category.	8	management of change. It's something that as
9 COMMISSIONER:	9	an industry we wouldn't be jumping into, but
10 Q. It seems to me that with the latest drilling	10	it's a consideration because of their speed
11 development we're getting fairly close to the	11	and ability to travel that far.
12 edge of the Continental Shelf, the distance is		MISSIONER:
13 considerable, a fact that you have to have two		By the sound of it, it's years out?
14 tanks to safely get out there and get back.	14 MR. E	
15 Are the present generation of heavy lift		I would expect that we are talking years, a
16 helicopters, are they getting near their	16	decade.
17 limits?		MISSIONER:
18 MR. BURT:	-	This business of having to have two tanks, of
19 A. I believe the industry in the last few three	19	course, will cut down on passenger carrying
20 years has referred to it that the 300 is the	20	capacity fairly significantly, wouldn't it?
21 new 200. 300 nautical miles out is the new	21 MR. H	
22 standard, and design build of an aircraft is a		Well, as soon as you're required to fly as far
23 process that can take 10, 12, 13 years.	23	as 274, like we're going, your payload will
24 COMMISSIONER:	24	drop off anyways. So if you put two tanks in,
25 Q. Yes.	25	it's not a matter of not enough seats because
	e 242	Page 244
1 MR. BURT:	1	you're just not carrying any more than out to
2 A. So this latency in the design versus need is	2	that distance probably about nine passengers.
3 not quite catching up with each other. So I	3	Albeit, that was our maximum load with the
4 think your observation is correct, the	4	Super Puma to the Husky White Rose location.
5 requirement to go further is definitely out	5	It does allow us to get our work done. We can
<ul> <li>6 there and 300 nautical miles is basically a</li> <li>7 new baseline. It needs to be looked at.</li> </ul>	6	get our work done fairly efficiently to those distances, but there's no more growth beyond
<ul><li>7 new baseline. It needs to be looked at.</li><li>8 COMMISSIONER:</li></ul>	7	ç .
	8	that point. At 300, and in some cases, as I said with harsh weather environments, less
<ul> <li>9 Q. I've read about what they call the extra heavy</li> <li>10 lift or something like that, a more I don't</li> </ul>	9 10	than 300 is the max. We have tasked out
now if it's larger or more powerful	10	everything that we have right now.
helicopters. Do they have a greater range, is		MISSIONER:
13 there anything		On another matter, I'm glad to hear you say
14 MR. BURT:	13 Q. 14	that the North Sea is the most comparable
15 A. Not necessarily.	15	environment to ours because I have directed my
16 COMMISSIONER:	16	reading and thinking and seeking of
17 Q. No.	17	information toward the North Sea, and at times
18 MR. BURT:	18	I've wondered, you know, should we be looking
19 A. No, and you can go to orders of magnitude		as an Inquiry elsewhere, so I'm relieved in a
20 beyond that. There are, for example, like the	20	sense to hear you say that the North Sea is
21 Chinook helicopters, the bigger tandem moto		where we ought to go and look, perhaps to
22 aircraft that, I think, do have some payload	22	Brazil, thinking of what they're doing, or
23 opportunities to do that for those distances.	23	what they're doing in Australia, different
24 There's also, of course, the new generation	24	climates, different sea temperatures.
tilt rotors which are like the V-22 in the US	25 MR. H	-

Feb	oruary 3, 2010	Multi-	Page	<sup>™</sup> Offshore Helicopter Safety	y Inquiry
		Page 245			Page 247
1	A. And again it's not a disparaging remark	<b>U</b>	1	we'll adjourn until 9:30.	C
2	other authority, but I don't believe, for		2	(CONCLUDED)	
3	example, Australia, although they've em				
4	SMS, when we went to Australia and wen				
5	there, as we did in the United States, v				
6	said, look, we have this wonderful overs	sight			
7	system, this dispatch, and no matter how	hard			
8	we tried, they would not accept this, ev	ven			
9	having a higher standard, even though th	ey do			
10	it for their own fixed wing. That bother	red			
11	me, there's no doubt about that. So I just	st,			
12	in some regards, don't I would not f	for			
13	offshore aviation, I don't think that they'	re			
14	anywhere close to where the North Sea	ı is,			
15	respectfully.				
16 (	COMMISSIONER:				
17	Q. I'm interested to hear you say that also, a	and,			
18	of course, we have, and the oil operate	or			
19	representatives who were sitting there	a			
20	couple of weeks ago, said that, you know	w, we			
21	are perhaps, in their experience, the mo				
22	among the most, if not the most high	-			
23	regulated people sometimes rail agai				
24	regulations, but I suspect in the offshor				
25	helicopter transport field, regulation is a	a			
		Page 246			Page 248
1	good thing. Would you agree with that?		1	CERTIFICATE	
2 1	MR. BURT:		2	We, the undersigned, do hereby certify that	
3	A. I'm very much of the opinion that the C			the foregoing is a true and correct transcript of a	
4	Newfoundland Offshore Petroleum Boa			hearing heard on the 3rd day of February, 2010	
5	large reason why we have the standard as			Tara Place, 31 Peet Street, Suite 213, St. John's	
6	safety levels of safety that we enjoy he			Newfoundland and Labrador and was transcribe	d by us
7	on the east coast of Canada, including			to the best of our ability by means of a sound	
8	Nova Scotia Board in Halifax.			apparatus.	
	COMMISSIONER:			Dated at St. John's, NL this	
10	Q. Uh-hm.			3rd day of February, 2010	
1	MR. BURT:			Cindy Sooley	
12	A. And I've been here 30 years doing this			Discoveries Unlimited Inc.	
13	maybe I have something to say about it.			Judy Moss	
	COMMISSIONER:		14	Discoveries Unlimited Inc.	
15	Q. Well, I would certainly like to thank a				
16	three of you. It's been one of the mor				
17	interesting two days that we have experied				
18	here doing the Inquiry. So I do express	-			
19	thanks. On the question of questions, a				
20	late I should think to start, and those wh				
21	have questions would no doubt like to ha				
22	evening to think about it, so if you're all	111			
23	agreement, I think it's wise to start	than			
24	questioning tomorrow morning rather				
25	attempt any questions now. So in that c	ase,			

### $\boldsymbol{Multi-Page}^{^{\mathrm{TM}}}$

#### & - ahead Offshore Helicopter Safety Inquiry

			Offshore Heli	copter Safety Inquiry
	241:21	61:23 64:7 83:22	accident [4] 105:24	adjacent [1] 12:24
-&-	<b>2004</b> [1] 147:8	<b>61s</b> [3] 71:4 83:18,20	193:9,23 213:13	adjourn [2] 145:14 247:1
<b>&amp;</b> [1] 202:4	2007 [2] 202:22 205:10	<b>62</b> [1] 73:1	accommodate [2] 229:9	adjust [3] 12:16 41:24
<b>G</b> [1] 202.4	2008 [1] 226:15	<b>65</b> [1] 92:17	230:24	80:17
	<b>2009</b> [3] 157:3 208:21,25	<b>67</b> [1] 153:24	accommodating [1]	adjusted [2] 6:14 7:6
	<b>2010</b> [3] 1:1 248:4,10	<b>68</b> [3] 161:20 171:7 173:6	141:3	administration [1]
<b>'09</b> [4] 194:20,21 197:2	<b>2011</b> [8] 147:11,20 158:8	00[3] 101.20 171.7 175.0	accommodations [3]	216:24
205:2	158:13,15,19 159:15	-7-	76:2,4 122:16	advance [1] 123:25
<b>'90s</b> [1] 153:5	170:11		account [1] 164:15	advanced [2] 54:7 66:21
	<b>213</b> [1] 248:5	<b>70</b> [4] 53:21 92:17 176:23	accretion [2] 77:4,12	advantage [1] 91:7
-1-	<b>22</b> [1] 54:22	177:2 72	accurate [2] 28:6,7	advertise [1] 73:10
<b>10</b> [14] 94:10,13,16	<b>23</b> <sub>[1]</sub> 129:11	<b>72</b> [1] 183:9	achieve [7] 58:19 84:21	advice [1] 145:3
105:24 118:1 190:25	<b>24</b> [9] 28:23 29:25 30:4	<b>73</b> [1] 196:24	87:17 150:2 153:9 177:22 209:14	advise [4] 13:1 115:19
208:24 212:10,11,14,16 212:18,22 241:23	32:19,20 42:25 114:6,8	<b>74</b> [1] 196:24	achievements [1]	192:24 193:1
<b>100</b> [3] 87:5 94:5 105:6	224:4	<b>75</b> [1] 199:11	154:16	advised [3] 88:23 120:20
	<b>24-hour</b> [1] 30:11	<b>78</b> [1] 210:13	achieving [1] 85:22	228:23
<b>103</b> [7] 35:13 102:12,20 102:22 103:13 106:14,15	<b>24/7</b> [6] 42:21 44:1,2	<b>79</b> [1] 217:21	acquire [1] 229:1	advises [1] 15:20
<b>103's</b> [1] 109:5	45:23 80:5 85:2		acronyms [1] 49:4	advisors [2] 192:19
<b>10 3 11 10 3 11 10 10 10 11 13 170 19 225 14</b>	27 [1] 202:25	-8-	act [5] 100:11 149:23	202:5
237:7	<b>274</b> [1] 243:23	<b>8</b> [3] 55:20 239:24,25	155:8 178:24 207:5	<b>Aerospace</b> [1] 220:23
<b>118</b> [1] 217:14	<b>29</b> [1] 221:16	80 [2] 223:13,13	acting [2] 98:4 159:16	affect [4] 77:16,19 152:5
<b>12</b> [9] 3:5 36:16 53:3,5	<b>2:00</b> [1] 145:14	800 [1] 56:2	action [6] 30:9 31:23	169:3
55:11,20 57:14 170:19		<b>82</b> [2] 233:9,12	32:13,14 112:13,24	affected [1] 33:11
241:23	-3-		actions [7] 29:13,14 88:5	affects [1] 167:10
<b>12-month</b> [1] 197:14	<b>3</b> [3] 1:1 107:25 209:5	-9-	113:18 150:8 179:13,13	affix [1] 65:11
<b>12th</b> [7] 119:18 122:22	<b>3.1</b> [2] 117:6,7		activate [3] 11:7 14:16	afraid [4] 153:11 186:15
123:1 124:5 213:13,24	<b>30</b> [13] 42:10 45:18 47:24	<b>9</b> [4] 47:9,9,11 117:24	110:16	186:21 187:3
219:11	84:7,16,19,21 85:15,22	<b>90</b> [1] 41:23	activated [4] 11:18,24	afternoon [1] 102:5
<b>13</b> [1] 241:23	87:10 90:7 97:4 246:12	<b>9001</b> [2] 198:9,11	14:17 15:8	afterwards [2] 64:6
<b>133</b> [1] 136:16	<b>300</b> [6] 94:3 241:20,21	<b>9001/20008</b> [1] 195:14	activating [1] 14:20	139:16
<b>14</b> [1] 94:10	242:6 244:8,10	<b>9001/2008</b> [1] 195:22	activation [1] 11:3	<b>again</b> [68] 15:12 23:12
<b>141</b> [1] 136:16	<b>31</b> [4] 111:22,23 114:4	<b>9001:2008</b> [1] 148:2	active [7] 46:5 117:15	23:16 26:20 30:21 36:8 42:14 44:3,5 48:20 52:16
<b>149</b> [1] 136:16	248:5	<b>92</b> [4] 12:13 83:22 90:3	123:16 153:19 155:18	55:23 59:19,21 66:25
<b>15</b> [13] 2:16,17,22 3:5	<b>360</b> [1] 216:13	221:1	161:6 163:24	72:11 77:19 79:3 80:6
4:24 106:20 178:14,20	<b>365</b> [1] 216:12	<b>92s</b> [6] 20:23 82:13 83:17 83:18,20 90:18	<b>activities</b> [3] 97:11 126:14 172:20	81:25,25 84:12 87:7
190:25 208:22,23,24	<b>38</b> [1] 55:16	<b>97</b> [1] 83:1	activity [6] 29:19 46:2	88:20 97:22 100:14 102:6
209:5 <b>155</b> [1] 1:11	<b>3:30</b> [1] 210:7	<b>97</b> [1] 85:1 <b>9:30</b> [1] 247:1	79:19 137:15 173:10	112:4 117:13,20 118:1 120:21 121:4 122:10
	<b>3rd</b> [2] 248:4,10	9:30[1] 247:1	198:5	125:12 128:2,4 130:11
<b>159</b> [1] 17:19			acts [1] 153:13	130:12 131:5,7 151:22
<b>16</b> [3] 2:17,22 106:20	-4-	-A-	actual [7] 17:21 115:23	152:3,24 162:12 169:17
<b>160</b> [2] 17:20 55:21	<b>4</b> [1] 116:9	<b>a.m</b> [1] 107:25	116:5 123:15 156:7 196:3	170:1 182:3,14 195:15
<b>167</b> [1] 126:10	<b>4.3</b> [1] 117:20	abiding [1] 199:4	206:10	196:6 200:22 203:16 211:16 217:6 218:25
<b>17</b> [1] 208:23	<b>40</b> [3] 37:8 58:13 226:22	ability [7] 36:3 78:11	actuality [1] 182:15	219:16 221:7,9 223:20
<b>178</b> [2] 111:1,2	<b>437</b> [4] 127:11,16 129:15	85:2 86:10 178:1 243:11	acuity [1] 92:22	226:19,20 227:3,3 228:19
<b>179</b> [2] 161:13 162:7	134:1	248:7	add [8] 55:24 95:22	229:15 238:17 245:1
<b>18</b> [2] 55:15 223:3	<b>4414</b> [1] 127:14	<b>able</b> [10] 12:20 31:8 35:21 45:13 73:16 78:14 99:5	108:15 123:9 207:4	against [4] 169:16 176:3
<b>180</b> [1] 198:10	<b>45</b> [4] 87:5 90:7 97:5	139:6 231:5 233:23	218:13 220:25 231:18	198:18 245:23
<b>181</b> [1] 194:17	209:6	aboard [1] 232:17	added [3] 1:15 170:25	<b>agencies</b> [4] 55:23 165:1
<b>19</b> [2] 141:18,24	<b>453</b> [1] 89:2	above [1] 211:8	219:1	201:16 202:9
<b>1997</b> [3] 225:16 226:8	<b>493</b> [1] 89:2	absolutely [15] 33:25	adding [1] 207:12	<b>agency</b> [3] 90:22 91:2 235:8
237:8		34:7 50:3 53:17 75:9	<b>addition</b> [8] 10:23 73:17 81:11 183:5,11 199:20	agents [2] 211:5 232:17
<b>1st</b> [1] 157:3	-5-	134:7 136:22 137:7,21	214:21 218:1	8
		143:9 144:10 215:18	additional [10] 7:8,21	<b>ago</b> [4] 177:6 190:5 230:3 245:20
-2-	<b>5</b> [1] 117:9 <b>55</b> [1] 02:15	233:18 237:15 240:2	10:15 15:15 78:1 220:25	agree [2] 209:19 246:1
<b>2</b> [4] 112:17,21 114:18	<b>55</b> [1] 92:15 <b>57</b> (1) 25:0	accept [2] 167:1 245:8	223:15 227:11 228:2,5	agreeable [1] 209:23
223:6	<b>57</b> [1] 25:9	acceptable [1] 23:21	Additionally [3] 66:3	agreed [3] 226:18,21
<b>20</b> [12] 21:19 53:20 55:14	(	accepted [1] 152:6	238:14,21	227:9
55:20 75:24 84:6,12,14	-6-	access [2] 185:9 240:19	address [4] 26:16 149:19	agreement [3] 97:23
84:20 85:22 86:14 87:10	<b>6</b> [1] 223:16	accessible [3] 7:1 15:1	213:16 233:12	107:15 246:23
<b>20-page</b> [1] 160:1	<b>60</b> [2] 52:22 87:6	234:4	addressed [4] 179:15	ahead [6] 40:9 68:22
200 [3] 161:19 162:9	<b>61</b> [7] 1:10,12,13 2:1	accessories [2] 6:4,16	184:4,11 233:3	99:6 135:7 158:5 224:5
1	1	1	1	1

Discoveries Unlimited Inc., Ph: (709)437-5028

#### Multi-Page<sup>TM</sup>

#### aid - background Offshore Helicopter Safety Inquiry

			Olishore Hello	copter Safety Inquiry
aid [5] 3:11 11:11 13:23	95:16 168:4 223:16	application [2] 39:23	174:13	199:2,19,22,24 201:10
66:22 123:25	231:16 244:5	73:20	asset [6] 35:4,9,15 106:7	201:19 202:8,13,15,16
air [32] 2:19 7:12,23 8:6	allowed [2] 5:7,18	apply [4] 171:17 175:15	107:11 123:16	202:21,23,25 203:2,13
8:8,9 10:5,15,16 15:19	allowing [1] 167:9	175:19 176:22	assets [2] 146:7 174:1	203:21,21 204:12 205:10
36:20 37:10 43:7,8 56:15	allows [3] 22:24 91:25	applying [1] 175:3	assign [4] 117:8 169:12	208:11,23,25 209:1
63:7 88:23 89:1 104:7	157:10	appoint [1] 163:17	178:12 181:10	Australia [3] 244:23
105:18,19 106:14,21	almost [8] 78:11 90:15	appreciate [3] 175:10	assigned [2] 58:11	245:3,4
107:8 109:19,24 115:15	93:2 100:9 125:19 140:14	240:11,21	117:10	Australia's [1] 159:7
119:20 145:22 146:3 190:23 210:25	222:18 235:4	appreciated [1] 145:13	assist [2] 7:12 93:18	authorities [1] 143:7
	along [6] 18:3 150:22			authority [5] 94:11,14
<b>airborne</b> [4] 38:5 39:1 75:17 77:24	151:7 179:22 182:11	appreciates [1] 240:21	<b>assistance</b> [2] 159:24 191:19	95:2 96:3 245:2
	190:21	<b>approach</b> [11] 12:4		auto [14] 38:6 82:14
aircraft [170] 3:9 4:7,7	alternate [2] 25:13	16:13 151:23 208:6 228:8	assists [1] 184:9	93:21 98:12 144:20
5:21,22 14:22 15:7,25 17:13 20:8,11,14,22 21:1	233:24	231:17 238:5 239:8,10 239:12,15	associated [1] 72:13	228:20,22 229:1,7,11,16
22:16,17 23:10 24:5,7	alternates [1] 26:3		Association [6] 129:19	230:20,24 231:5
26:17,24,25 27:5,7,12	altimeter [1] 230:22	<b>approaches</b> [3] 95:6,8 95:8	130:8 145:5,8 160:24	auto-hover [20] 89:12
27:14 28:11,11 31:18,19			161:4	89:15,20,22,24 90:3,11
32:4,5 34:1 35:17 39:14	always [18] 12:3 16:5,13	appropriate [1] 221:12	associations [1] 160:12	90:14,18 91:25 92:2,5
39:19 40:3,3,12,15,16	16:23 18:25 19:8 21:16	appropriately [1] 98:5	<b>assume</b> [2] 13:9 87:22	93:10 95:15,21 96:4,13
40:24 41:3 46:6,8,8	32:2 34:23 42:9 55:3 64:6 119:2 146:8 148:22	approval [7] 36:2 38:10	<b>assumed</b> [1] 74:5	96:15 98:15 99:6
47:14 54:17 59:1 61:4	156:24 226:9 236:1	107:14,18,20 222:8	assuming [1] 87:20	auto-pilot [3] 95:3,5,10
63:12,21 64:9 65:12,16	ambulance [6] 104:8	227:10	0	automatic [3] 115:9
65:17 66:4,13,18 68:6	105:19 107:8,12 145:23	approvals [2] 105:8	assumption [1] 87:22	120:13,19
71:16,18 73:21 74:6,14	146:3	108:2	assumptions [1] 120:7	automatically [4] 15:9
74:21 75:15 80:8,13		<b>approved</b> [3] 5:25 90:19	<b>assurance</b> [6] 149:8	44:19 93:13 180:1
82:11,16,21 83:12,17	ambulatory [1] 39:18	224:7	167:21 195:16 196:25	autopilot [1] 92:19
84:23,24 88:6,9,15,16 88:18 89:12,16,21 92:19	amendment [1] 2:5	April/May [1] 90:3	199:12 205:22	auxiliary [4] 66:15
92:20 93:12,16,17 94:1	America [2] 220:23	area [30] 24:7 35:18	assured [1] 15:18	219:23 220:10 221:13
94:6,13,16 95:2,4,7	236:11	46:17 60:9 65:1,2,2,4	Atlantic [6] 48:23,25	available [12] 10:17
97:17 98:13,15 99:20,21	among [1] 245:22	68:7 69:6,7 78:5,7 92:4	49:5,25 56:22 211:17	17:16 35:15 57:6 61:23
105:3,6 106:4 111:24	amount [3] 21:15,15	127:20 142:3 165:19	attach [1] 46:25	63:17 127:9 191:20
114:25 115:3 116:13,13	43:9	169:7 174:17 176:3	attached [7] 41:7 61:7	208:16 221:5 223:24
117:3,25 118:19,20 119:7	<b>amphibious</b> [1] 225:6	186:23 187:6 189:5	63:9 74:24 88:12 140:14	224:18
120:3,4,11 121:3,14,18	analysing [2] 214:2	194:14 195:16,18 196:11	232:13	avenue [6] 183:20 184:9
121:22 125:17,20 127:3	215:17	210:5 237:1,3	attack [2] 46:24 51:2	184:18 192:12,21 209:21
140:23 163:23 168:24	analysis [3] 167:15 217:5	areas [16] 9:16 38:4	attempt [1] 246:25	avenues [5] 59:20 96:21
175:16,23 176:4 190:13 192:16 197:3 211:1 220:3	221:5	78:21 126:4 149:14,16	attend [3] 51:1 145:7	152:10 153:7 165:6
220:11 221:2,3,4,7,11	ancillary [1] 40:25	164:11,14 169:16 172:18	234:24	average [3] 21:18 70:17
221:14,18,21,22 224:20	angle [1] 54:4	195:24 197:13 200:6 201:18 216:21 234:16	attendant [11] 3:2 39:5	203:3
224:22 225:5,6,10 229:2	e		48:16 100:12,12 124:24	aviation [27] 3:8 6:1,20
229:4,9,20 230:8,13,19	ANNE [1] 2:11	arranged [1] 120:23	141:8,19 142:2,8 227:7	90:22 91:1 96:3 129:24
231:1,4 233:5 235:7	annotated [1] 219:20	arrangement [1] 225:15	attendants [1] 50:21	147:2,19,25 152:6 155:20
236:5,6,10,20 238:24	announcements [1]	arrival [1] 115:21	attention [6] 4:2 8:21	158:21,22 170:2 177:18
239:25 240:7 241:22	12:21	arrive [3] 52:2 88:14	16:17 124:2 148:13 193:6	187:19 188:1 189:13
242:22	annual [5] 37:17 133:5	127:24	attribute [1] 187:9	202:5 203:19 205:4 235:2
airfield [1] 76:1	201:6 202:12 203:21	arrived [1] 125:6		235:17,18 238:19 245:13
airframe [1] 146:9	<b>annually</b> [2] 60:4 203:10	arrives [1] 22:14	audience [1] 37:1	avoid [3] 12:7,8 16:15
airline [5] 147:9 158:12	anomaly [1] 119:24	aspect [11] 57:21 93:9	audio [5] 12:11 18:1,2	awarded [1] 82:8
236:3,8 239:23	anonymous [2] 150:5,8	98:9 146:18 154:22	18:15 19:12	aware [6] 97:21 98:8
airlines [2] 3:1 4:3	answer [2] 38:17 220:19	160:17 174:3,12 175:15	audit [29] 148:24 149:4	115:8 120:25 165:9
<b>airplane</b> [1] 243:2	answering [1] 215:7	176:1 197:10	149:7 170:10 194:17 196:9 197:9,11 198:18	192:25
ALARP [1] 169:17	answers [2] 214:23,24	aspects [6] 110:5 131:5	200:1,1,19 201:1,5,11	awareness [2] 80:7,11
Alaska [8] 67:3 68:16		137:10 147:3 151:5	201:13,22,23 202:12	away [9] 78:14 96:19
74:19 79:6 80:3,9,9 82:1	anticipate [1] 97:4	210:14	203:7 204:2,18 205:14	143:5 144:2,5 178:24
Albeit [1] 244:3	<b>anticipated</b> [2] 25:16 25:20	assemble [1] 119:25	206:10,11 208:12,15	184:4 207:18 208:17
alcohol [5] 5:3 167:23		assembled [1] 216:24	209:23 210:2	<b>awful</b> [2] 196:18 240:14
210:12,16 213:8	anticipating [1] 96:6	assess [3] 31:21 123:24	audited [1] 205:16	awhile [1] 207:23
alert [4] 88:4,4 115:14	anyway [1] 210:6	182:12	auditing [15] 148:25	
120:21	anyways [1] 243:24	<b>assessed</b> [1] 48:14	194:14,24 195:11 198:12	-B-
alerted [2] 1:18 4:14	AOHS [2] 188:1,14	assessment [16] 28:16	198:12 199:5 200:25	
	AOMS [3] 48:2,13	122:13 123:25 124:21,21	202:4 205:18 206:6,20	<b>B</b> [1] 59:4
alike [1] 150:19	211:18	125:12,13 161:16,21	206:23 208:2 209:10	backed [1] 191:14
alive [1] 151:1	apart [2] 32:11 166:10	166:5 169:15 171:7,24	audits [42] 147:11 148:18	background [11] 53:4
<b>all-weather</b> [1] 37:25	apparatus [4] 6:22 7:11	174:20 225:16 237:8	148:23 158:16 167:22	53:17,22 55:4 56:16
allotment [1] 58:13	7:16 248:8	assessments [6] 127:19	170:11 194:15,16,20,21	57:16 64:25 159:7 215:5
<b>allow</b> [7] 39:15 92:2	applicable [1] 164:23	166:6,13,13 167:23	194:25 195:13,16 196:6 196:8,18 197:4,18 198:2	223:24 235:25
	11		170.0,10 177.4,10 190.2	

Discoveries Unlimited Inc., Ph: (709)437-5028

## **Multi-Page**<sup>™</sup>

#### backgrounds - capable Offshore Helicopter Safety Inquiry

			Offshore Helio	copter Safety Inquiry
backgrounds [2] 54:4,5	behalf [2] 127:20 149:8	boards [1] 165:7	British [1] 127:11	business [8] 77:23 80:11
backup [1] 175:19	behaves [1] 153:2	boat [2] 68:1 95:18	broad [1] 240:5	107:16 131:10 152:3
baggage [6] 5:10,16 16:3	<b>behaviour</b> [1] 149:24	<b>bodes</b> [1] 131:10	broader [2] 126:25	165:18 236:25 243:18
21:5,10,11	behavioural [2] 184:12	<b>bodies</b> [3] 159:11 164:12	127:10	busting [1] 186:24
bags [3] 11:20,23 66:21	184:21	165:22	brochure [2] 73:3,5	<b>busy</b> [1] 30:15
balance [1] 84:8	<b>belief</b> [1] 152:12	body [3] 67:17 125:10,17	broken [1] 197:14	<b>button</b> [7] 9:24 10:2
ball [2] 5:15 72:17	believes [1] 152:8	<b>boiled</b> [1] 217:6	brought [12] 58:6 120:9	75:18 94:1 115:11 119:8
<b>Bang</b> [1] 166:20	belong [1] 132.8	book [7] 114:12,16 119:3	120:13 124:23 170:24	120:14
Banks [107] 2:10 38:15	beneath [2] 18:25 233:21	154:21 198:20 199:4	184:13 197:22,24 213:14	
54:24 55:8 59:18 60:14		208:9	219:16 223:23 227:2	-C-
112:16,20 116:25 119:9	<b>beneficial</b> [1] 234:17	books [2] 5:18 114:10	buckle [1] 12:15	<b>C</b> [3] 3:16 111:22 112:15
122:8 128:24 129:3	<b>benefit</b> [4] 7:23 65:22 133:3 167:11	<b>boom</b> [1] 11:22	<b>buddy</b> [2] 7:1 15:13	<b>C-NLOPB</b> [1] 24:18
151:14,18,20 152:19	benefits [2] 163:23	boots [5] 140:10,10,16	<b>build</b> [9] 68:14 71:17	<b>C1</b> [5] 111:22 112:6 113:7
154:3,9 156:16 158:9,14 159:3 160:16 161:24	230:21	140:20,21	76:21 77:2,11 157:9	113:23,25
162:3,11,22 163:1,4,9	best [12] 62:8 65:20	<b>border</b> [1] 56:10	166:9 221:17 241:22	<b>CAA</b> [3] 91:14 238:13
164:10 168:20 169:25	142:16,17 145:9 160:22	borders [1] 56:25	building [2] 80:6 117:23	238:14
171:19 173:12,20 175:12	208:6 215:21 216:2	borne [2] 227:23 228:5	built [8] 75:1 84:13	cabin [29] 5:19 10:19,21
177:3 178:7 180:13 181:1	234:16,18 248:7	<b>bothered</b> [1] 245:10	127:16 148:8 156:25	10:21 11:1,5,10,11,13
181:6,12,19 182:21 183:6	better [7] 46:7 103:1	bottom [8] 13:21 18:3	157:23 167:6 177:5	13:17,19 23:25 24:21
183:15,19 185:11,23 186:5,13 187:21 188:20	143:25 173:16 180:3	18:16 22:23 112:2,6	<b>bulbs</b> [2] 135:23,25	39:5 48:16 51:25 66:24 100:11 123:18,19,23
188:25 189:14,21 190:4	233:20 240:8	113:7 131:14	<b>bunch</b> [2] 58:23 103:14	124:15,23,24 125:13
190:9,15,19 192:1,10	<b>between</b> [17] 16:2 59:10	boundaries [1] 118:18	Burt [242] 2:10 22:7 24:2	141:8,19 142:2 227:7
193:2,10,15,19 194:6,11	67:16 72:14 74:13 77:6 83:17,20 85:22 86:25	bounds [1] 191:8	24:12 38:14,22 40:11 41:8,12,16,22 42:6,22	cable [1] 65:24
195:4,9 197:8,20 198:14	94:10 97:23 101:20 134:5	box [2] 106:7 219:13	43:1,12,16,24 44:9 45:6	Cairn [1] 82:9
199:15,23 200:7,11,15	134:16 174:13 183:24	boxes [1] 173:25	45:15,21 46:1,19 47:1,6	calibration [1] 135:1
201:2,12 202:24 203:4,9 203:15,23 204:7,11,21	beyond [5] 126:6 215:14	<b>BP</b> [2] 81:21 82:7	47:15,20,25 48:7,22 49:1	calibrations [1] 196:3
205:1,11,19 206:16,24	215:17 242:20 244:7	brace [5] 13:8,9,9,9 14:8	49:6,13,17 50:2,16,23	calls [4] 87:23 108:15
207:22 208:3 209:2,7,12	biased [1] 191:13	Brazil [1] 244:22	51:3,20 52:12 53:7,11 54:2,14,20 61:1,17,24	109:15 110:13
210:18 212:4,9,15,23	<b>bible</b> [2] 160:6 170:14	break [10] 13:20 67:7	62:2,4,8,11 64:10,15,23	camera [2] 67:20 72:17
213:3,9	<b>big</b> [8] 70:3 87:22 118:6	71:20,25 138:3 145:15	67:9,13 68:12,24 69:4	cameras [2] 5:6 80:8
<b>bar</b> [1] 176:10	162:14 164:5 165:20	169:1 198:2 210:7,8	69:19,25 70:7,22 72:9	Canada [59] 2:20 3:14
Barrow [3] 80:9 81:25	243:6,7	breakdown [2] 53:3,4	73:4,19,25 74:7,15 75:8	5:25 24:23 25:4 60:8,10
83:14	bigger [1] 242:21	breaks [1] 65:25	75:12 76:14,18,23 77:10 77:18 78:23 79:2,14,20	60:11 61:5,19 90:4,8,9
<b>base</b> [21] 27:25 29:1 35:7 55:1 58:13 72:3 81:2,12	biggest [5] 28:4 165:3	breath [4] 8:5 9:23 10:10	79:25 80:4 81:3,7,13,19	91:9 97:3,23 98:2,2,4,7
85:10 99:19 103:16 116:6	166:2 167:25 172:23	14:9	81:24 82:4,20,25 83:4,8	99:1,11 141:15 147:7,19 154:14 157:1 159:5,13
126:4 132:1 149:6 168:24	bilateral [1] 97:22	breathe [3] 8:3 10:7,13	83:13,19,24 84:4,11,22	160:24 170:16,17 195:20
192:5,7 193:7,14 240:5	<b>bit</b> [25] 19:2 27:19 37:23	breathing [10] 6:22 7:11	85:12,18,25 86:4,21 87:2	195:22 196:5,7 201:17
based [10] 7:14 58:17	48:1 52:13,23 55:10 64:24 70:16 126:24	7:16 8:2,6,11 10:7,9	87:14,19 89:14,19 90:13 90:23 91:4,10 92:7 94:23	202:8,12 203:7,13 211:12
117:17 182:20 184:12,21	130:12 142:5 156:17	170:13 187:13	96:8 97:7,13 98:14,19	218:9,14 219:7,18 221:23
218:4,10,25 226:23	159:24 163:19 167:11	brief [6] 26:16 28:2 30:3	99:2,7,12 100:3,23 101:2	222:8,12 236:16 237:22 238:11,13,16,17 240:1,5
<b>baseline</b> [1] 242:7	169:5 176:17 178:17	30:17 51:25 163:10	101:7,12,16,24 102:14	246:3,7
bases [2] 57:13 149:5	187:24 196:1 217:4	<b>briefed</b> [3] 30:14 80:18 120:23	103:21 104:14,22 110:21	<b>Canada's</b> [4] 35:10 38:9
<b>basic</b> [3] 52:10 92:18	232:11 234:10 246:19 <b>bite</b> [1] 9:18		111:3,8,16,21 112:5,14 113:1,6,10,14,22 114:12	97:11 221:21
129:11		<b>briefing</b> [12] 2:25 12:22 17:5,10 26:17 27:16,18	114:13,23 116:17 117:5	<b>Canadian</b> [8] 3:8 54:22
<b>basis</b> [9] 102:1 118:8 127:14 148:24 149:10	<b>blade</b> [1] 176:8 <b>blades</b> [1] 149:5	27:19 30:19,24 84:24	118:4,15 119:15,22 122:3	91:3 127:13 129:19 130:8
167:7 201:6 211:16		142:17	122:24 123:6,10 124:10	135:11 238:18
212:17	blank [1] 184:24	briefly [1] 171:15	125:8 126:22 128:11,15 128:18,22 129:7,23 130:3	cancellation [1] 206:1
<b>baskets</b> [1] 63:4	blanks [1] 184:24	briefs [1] 157:18	130:7 138:21 139:2,8,13	canned [2] 88:24,25
Beach [1] 219:8	blast [1] 44:18	bright [3] 22:20,21 23:6	139:21,25 140:7,12,19	cannot [2] 14:12 77:12
<b>beacon</b> [1] 6:24	blend [1] 188:5	bring [28] 8:20 39:19	141:1,11,16,23 142:24	CAP [8] 127:11,16
beauty [1] 79:6	<b>block</b> [1] 221:6	62:19 111:19 119:20	143:14,19 144:8 145:2	129:15,18,20 130:4,6
become [5] 10:16 57:6	<b>blow</b> [1] 9:20	123:19,23 145:6 149:11	151:15 161:1 213:19,25	134:1
68:17 164:4 192:25	Blue [2] 115:17 120:12	153:14 155:5,7 157:13 165:16 172:6 174:10,21	214:15,25 215:4,15 216:7 216:14,20 217:18 218:2	<b>capabilities</b> [9] 34:13 38:19,20 54:6 74:2 79:8
becomes [4] 20:18 30:7	board [24] 3:16 5:17 11:8	174:25 176:15 180:18	218:23 220:4,12,17	92:6 103:7,11
92:21 95:4	14:23 15:16 16:11 17:17	182:13 186:16 187:2,4	221:24 222:4,13,17,22	capability [19] 34:23
began [1] 120:25	24:25 39:3,12 51:12 62:24 66:13,17 88:10	188:5 189:23 191:6	223:19 224:16 225:3,24	35:3 38:1,3 39:2,10,20
begin [5] 1:7 10:9 23:7	117:16 125:22 130:20	235:25	226:5 227:24 228:4,9,14 229:23 230:4,9 231:6,12	40:5 42:17 71:13,14 74:3
109:15 147:11	156:22 179:20 199:8	bringing [8] 46:11,12	234:8,20 235:20,24 237:9	78:1 79:3,7 82:12 91:20
beginning [2] 215:25	201:17 246:4,8	123:17 150:25 155:1	237:14,19 241:7,18 242:1	149:1 223:16
229:5	boarded [1] 14:21	176:9 186:21 187:3	242:14,18 243:5,14,21	<b>capable</b> [10] 34:21 52:18
begins [2] 14:19 166:18	<b>boarding</b> [1] 12:2	<b>brings</b> [1] 57:19	244:25 246:2,11	53:15 55:13 56:1 59:12 62:7 71:8 74:2 175:16
		Bristow [1] 91:16		52.7 71.5 77.2 175.10

Discoveries Unlimited Inc., Ph: (709)437-5028

## Multi-Page<sup>TM</sup>

#### capacity - confirm Offshore Helicopter Safety Inquiry

• /			Offshore Heli	copter Safety Inquiry
capacity [2] 70:11	97:12,22 98:24 99:3,11	circulated [1] 2:1	150:17,22 153:7 158:24	complemented [2]
243:20	134:25 198:15 222:12,21	civilian [3] 55:23 60:19	159:9 163:13 167:9	34:23 56:21
CAPP [1] 129:18	228:20,23 231:10,11 236:24	129:24	170:11 184:5	complements [1] 54:5
caps [1] 5:15	certifications [1] 97:25	<b>Clarenville</b> [3] 105:24	command [1] 13:8	<b>complete</b> [6] 62:25 63:25
captain [1] 137:16	certified [13] 61:9,14	106:8 108:22 clarified [1] 87:23	Commanding [2] 102:19 103:13	66:1 127:7 131:8 179:25 completed [10] 38:11
captains [2] 127:3,3	90:6 92:19 93:18 94:24	clarify [6] 99:24 145:21	<b>comment</b> [3] 66:10	56:2 158:18 165:8 169:14
caption [1] 19:11	169:8 220:2 221:23	146:5,6 206:18 218:18	143:2 179:4	178:4 179:17,19 201:14
capturing [1] 184:10	222:11 229:13 231:15 239:9	clarifying [1] 145:18	comments [3] 29:17,18	229:11
<b>car</b> [3] 105:10,13,23	<b>certify</b> [3] 97:4 236:15	class [2] 36:20 60:19	218:17	completing [1] 10:6
<b>card</b> [12] 12:22 17:5,11 17:11,12,21 175:14	248:2	classify [1] 182:10	<b>commercial</b> [3] 3:1 4:3	<b>compliance</b> [1] 221:16
183:10,11,12 185:15,17	certifying [1] 96:4	<b>clear</b> [18] 9:10,11,21,22	4:7 Commissioner [66] 1:2	<b>compliant</b> [1] 62:17
cards [7] 17:23 182:25	chain [2] 61:9 178:25	14:13 20:3 22:20,21 23:6	1:6,16,21 2:3,8 67:5,11	<b>complicated</b> [1] 72:11
182:25 183:3,5 184:15	chair [1] 191:2	33:18 80:21 87:20 100:14 103:25 215:22 233:14	68:10,21 69:2,16 70:20	<b>component</b> [2] 29:14 43:22
184:15	chairing [1] 191:13	235:1 239:4	71:19 74:4 75:5,10 76:7	<b>components</b> [6] 61:16
<b>care</b> [2] 124:25 186:19	<b>chairman</b> [2] 145:4	cleared [1] 10:4	76:16,20 77:8,14 78:17 94:20 112:10 113:20,24	156:18 157:14,15 170:16
<b>career</b> [2] 53:19 129:14 <b>careful</b> [2] 118:17 148:12	234:22	clearly [7] 11:1 151:23	114:3,6,7,19 138:6,12	170:18
carefully [2] 6:5 12:1	<b>chairs</b> [2] 46:11 72:6	216:2 221:11 232:25	138:24 139:5,10,15,23	comprehensive [1]
cargo [9] 23:24,24 24:3	<b>challenge</b> [3] 28:4 75:23 76:3	235:3 238:8	140:5,9,17,24 141:5,13 141:21 142:10 143:1,16	147:5
24:10,15,19,21 25:1,4	<b>chance</b> [1] 182:9	click [1] 180:1	144:6,13 145:12 212:2,7	<b>compressed</b> [2] 7:12 8:6
carried [1] 8:16	change [24] 18:14,17	clients [1] 148:16	240:25 241:2,9,24 242:8	<b>comprised</b> [2] 3:7 197:4 <b>compromise</b> [2] 94:21
carry [4] 14:3 78:15	19:1,9 43:20 132:17,18	climates [1] 244:24 climbing [1] 13:24	242:16 243:3,12,17 244:12 245:16 246:9,14	152:5
197:12 228:12	132:21 135:22 149:18	<b>clip</b> [1] 9:6	<b>commitment</b> [1] 152:23	compromised [1] 14:7
carrying [8] 21:17 24:21	157:8,21 164:24 167:25 168:13,16,18,19 170:4	clips [1] 6:23	<b>committed</b> [2] 4:17	<b>computer</b> [2] 112:25
122:22,25 123:1 142:7 243:19 244:1	171:24 219:22 229:9,12	close [10] 13:4 15:21	28:21	183:25
CARS [1] 3:8	243:8	16:17,21 20:15 49:22	committee [21] 18:22	computers [1] 5:8
case [11] 2:4 51:22 73:7	changed [9] 20:23 29:14	232:3 233:4 241:11	145:4 160:23 161:3 165:5	<b>concern</b> [9] 26:1 135:8
92:16 121:4,8,24 140:6	121:15 132:16 134:2 135:15 219:25 220:2	245:14 <b>closed</b> [2] 80:12 206:12	187:20,23,25 188:2,13 189:2,12,25 190:3,8,12	180:16 181:25 182:1,1 183:21 186:17 188:10
174:21 193:24 246:25	228:16	<b>Closed</b> [2] 80:12 200:12 <b>CO</b> [1] 191:1	191:16,17 223:21 233:18	concerned [1] 20:8
<b>cases</b> [16] 39:24 40:20 42:12,13 51:21 53:19	changes [15] 26:2 59:5	<b>co-authority</b> [1] 42:20	234:23	concerning [1] 5:2
62:17 86:12 88:23 95:18	155:2 164:23 198:21,21	<b>co-chair</b> [2] 160:23	<b>committees</b> [5] 160:19	concerns [5] 155:6
122:14 127:22 166:8	213:12,14,21 217:15,24 219:18 228:5 237:4 243:7	191:2	188:4,23,24 191:24 communicated [2]	179:15 182:18 184:4
171:23 172:10 244:8	changing [9] 19:8	co-located [2] 85:1,6	27:10 216:1	191:7
<b>catch</b> [2] 199:5 233:19	132:19 134:5,16 135:23	co-locations [1] 232:11	communication [8]	<b>CONCLUDED</b> [1] 247:2
catching [1] 242:3	135:24,25 136:2 207:7	coast [8] 35:12 56:22	24:18 25:18 27:6 30:10	<b>conclusion</b> [3] 31:4 32:9
categories [2] 181:18 187:16	<b>Chapter</b> [4] 112:9,17,21 114:18	126:3 127:13 131:25 142:20 237:12 246:7	43:7 101:19 165:3 189:22	221:15
category [5] 158:18	<b>Chapter/</b> [1] 112:10	cockpit [5] 11:9,19,21	<b>communications</b> [5] 27:9 56:18 102:21 115:17	<b>concurrence</b> [1] 227:10
181:13 206:22 212:3	charge [1] 94:13	14:17 71:14	131:4	condition [11] 6:8 23:9
241:8	<b>CHC</b> [1] 91:17	coded [1] 78:6	companies [21] 62:16	59:2,3 92:25 125:1,14
caught [1] 174:13	<b>check</b> [5] 5:14 8:15 13:5	coincidence [1] 141:25	62:16,21 91:16,17 103:5	129:13 172:3,3,4 conditions [3] 35:18
<b>caution</b> [2] 12:6 16:1 <b>cell</b> [3] 5:5 88:2 120:18	88:22 128:8	collaborated [1] 214:2	105:5 106:3,6,9 107:15 128:2 137:8 152:7,11	77:16 92:9
centre [8] 35:10,25 42:21	checked [2] 6:8 132:10	<b>collar</b> [3] 61:8 122:6	160:4 177:11 192:19	conduct [8] 21:22 34:25
44:14 110:18 111:10	checking [1] 88:19	138:22	216:16 234:23 239:14	45:11 107:8,9 109:3
115:10 120:1	<b>checklist</b> [7] 128:6	<b>collect</b> [1] 217:2 <b>collected</b> [1] 196:11	<b>company</b> [27] 33:6	146:3 196:6 conducted [6] 27:18
<b>CEO</b> [3] 151:24 163:14	129:10 197:11 218:8,10 218:17 219:5	<b>collection</b> [1] 196:11 <b>collection</b> [1] 165:24	133:10 136:4 144:21 146:7 147:18 149:25	99:18 131:23 200:2 212:1
182:16	checklists [1] 127:16	<b>collective</b> [1] 148:3	150:10,11,12,20,20	239:12
<b>certain</b> [10] 38:16 43:9 54:10 59:20 163:21	checks [2] 88:15,19	<b>Colonel</b> [4] 43:8 91:24	151:24 152:10 163:14,17	conducts [1] 131:15
164:13 165:19 181:21	cheek [1] 103:24	108:25 110:1	164:4 165:11 166:5 177:10 187:13 192:13	confidence [1] 7:21
185:4 187:3	<b>chest</b> [1] 7:2	colour [1] 69:15	196:12 217:1,5 220:22	<b>confidential</b> [2] 161:13
<b>certainly</b> [10] 35:20 36:4	chief [2] 200:22 205:23	<b>combination</b> [4] 3:6,16	238:4	162:15
145:10 159:4 165:2 186:22 193:21 196:20	Chinook [1] 242:21	3:19 61:15	comparable [1] 244:14	confidentiality [1] 162:12
218:3 246:15	<b>chip</b> [11] 31:1,4,7,8,13	<b>combine</b> [3] 189:7 190:2 218:19	<b>compartment</b> [2] 23:25 24:4	<b>configuration</b> [5] 40:4
CERTIFICATE [1]	31:15,21 32:8 33:18,21 34:3	<b>combined</b> [1] 55:19	<b>competent</b> [2] 55:13	40:13 80:22,23 81:1
248:1	cigarette [1] 5:4	<b>comfort</b> [3] 6:14 7:6	57:2	<b>configured</b> [2] 64:14
certificates [1] 164:17	<b>Cindy</b> [1] 248:11	12:17	complement [9] 46:4	81:2
<b>certification</b> [21] 60:21 89:23 90:2,2,9 91:8 96:6	circuit [2] 80:12 94:2	coming [15] 59:20 110:5	48:17 56:15 57:19 58:14	<b>confirm</b> [3] 117:13,16 117:18
07.25 70.2,2,7 91:0 90:0		121:11 127:19 144:19,23	94:18,25 95:22 226:25	11/.10
k		4	1	1

Discoveries Unlimited Inc., Ph: (709)437-5028

Multi-Page<sup>TM</sup>

#### **conformance** [1] 207:24 contracts [4] 105:4 203:8 205:15 210:15 cross [4] 16:1 56:10 dear [1] 234:25 213:15,22 216:5,10,17 164:21,25 166:23 103:1 148:25 death [10] 36:4 104:12 **confusing** [1] 93:8 217:16 220:20 223:6,22 contractually [1] 34:18 cross-bordering [1] 106:5,9,12,20 107:12,20 conjoined [1] 208:11 223:23 226:23 240:18 107:24 108:3 164:18 Contrail [1] 205:4 **conjunction** [2] 127:13 Cougar's [14] 22:11 35:2 decade [1] 243:16 **Crux** [2] 30:9 100:2 contrast [1] 179:1 233:22 36:7,18 38:2,19 126:14 **December** [1] 226:15 culture [17] 148:12 **contribution** [1] 214:22 **connect** [1] 195:25 132:20 137:13 194:4 149:21 150:1,14 151:4,7 **decide** [2] 13:25 180:19 connected [2] 72:20 control [25] 10:7 43:7,9 205:17 215:19,19 217:23 152:15,18,20,25 153:16 decided [1] 224:11 180:11 71:11,12 86:12,16,17,17 **counsel** [2] 1:17,25 153:22 154:8 186:9,12 86:18 88:23 89:1 92:23 connection [3] 87:21 decision [2] 224:4,22 **counted** [1] 208:22 187:6.11 94:9.11 115:10.16 120:1 132:23 198:13 deck [7] 16:4 21:19 46:13 counts [1] 56:6 currencies [4] 58:12 130:15,15,18 136:8 129:12,14,15 131:3 connections [1] 52:6 59:7,9 60:3 165:20 231:17,19 couple [12] 52:21 67:6 **consequence** [3] 173:23 Decker [2] 125:14,18 105:23 159:5 167:6 177:6 current [3] 37:8 225:15 controllable [1] 173:13 174:2,10 declared [1] 5:14 196:22 202:12 218:17 231:1 controls [1] 172:13 consider [3] 204:6 223:10 234:6 245:20 decline 11 143:11 curve [1] 211:8 **conventions** [1] 160:20 230:15 237:13 coupled [2] 173:24 174:9 customary [1] 201:19 decrease [1] 8:9 **converted** [1] 40:4 considerable [1] 241:13 courier [1] 117:25 customer [14] 28:20.24 decreases [2] 10:3,15 coolers [2] 49:21 65:8 consideration [4] 28:25 29:10 30:5 32:17 course [35] 2:25 20:9 dedicated [25] 36:14 coordination [5] 35:10 223:14,17 225:17 243:10 21:14 26:8,14 27:25 29:1 32:24 87:20 98:1 117:21 38:25 42:15 65:2 71:10 44:14 51:23 56:17 101:20 considerations [2] 14:2 29:12 39:20 41:4 48:1 148:20 149:8 165:22 72:13 73:21,21 74:10,12 copies [3] 17:23 177:7 175:8 51:4 66:15 70:9 72:18 239:18 74:13,13,18 75:4 76:10 179:1 74:16 89:25 93:22 105:19 **considered** [2] 30:6 customers [23] 28:21,22 82:10,16 83:11,15 84:14 111:9 114:25 117:9 226:2 **CODY** [7] 2:1 17:15 112:23 81:20 102:2,7,10 126:4 86:8 123:3 227:16,16 118:16 119:24 120:24 128:15 136:22 161:18 127:20,21 130:16 131:12 228:17 consistent [1] 81:1 130:9 134:20 144:18,24 179:20 164:20 192:20 194:7 deep [1] 55:1 consistently [1] 128:1 215:6 231:18 232:12 201:20 202:2 208:4,5,11 core [1] 143:10 default [2] 115:1 117:14 consists [1] 58:16 242:24 243:19 245:18 209:24,24 230:14 239:13 corner [2] 13:16 151:8 Defence [1] 109:3 constant [2] 37:12 196:9 courses [3] 20:5,5 127:9 cut [1] 243:19 correct [63] 17:13,15 deficiencies [1] 8:20 **constantly** [1] 37:15 courtesy [1] 102:25 cuts [1] 87:7 18:6,12 21:5,7,25 25:6 **definitely** [4] 27:4 constraint [1] 50:4 cover [9] 9:1.11 62:2 31:11 32:22 42:23 45:5 cycle [3] 122:10,11,17 172:22 174:17 242:5 162:9 197:14 223:1,2 consultation [4] 24:25 45:7 49:18 50:17 51:4 cylinder [1] 10:16 **definition** [4] 180:14,20 225:14 231:23 49:11 106:2 137:19 61:2 69:20 74:8,8 76:15 181:9,15 covered [11] 96:21 99:10 79:19,21 81:8 83:25 consulted [1] 137:9 -Ddefinitions [3] 171:16 108:25 149:5 167:1 171:3 85:19 86:22 90:24 91:5 consulting [1] 106:5 91:11 96:9 99:8 100:24 176:22 185:15 220:8 173:7 180:21 **D**<sub>[11]</sub> 60:19 **CONT'D** [1] 2:11 101:3,17 107:1,6,14 223:11 232:3 **deflated** [1] 15:5 daily [1] 166:4 contact [17] 12:7 15:9 110:10 116:22 128:17 covering [2] 46:18 **degree** [4] 69:13.14 damage [2] 8:7 9:19 27:3 33:4 35:25 48:9 129:22 131:21 132:8,12 140:11 181:21 184:17 88:1 100:16 101:10 115:3 135:18 139:9,14 142:25 dance [1] 52:13 covers [2] 137:23 223:13 delegate [1] 28:1 115:5,22 117:21 121:14 153:14 158:8 178:21 Dash [2] 239:24,25 craft [2] 236:14 240:6 121:19 179:9 193:20 deliverable 11 85:1 182:22 185:24 187:5 data [5] 96:22 117:25 create [5] 112:24 116:1 212:24 220:3,5 222:14 contacting [1] 106:14 demand [5] 9:8,12,14 165:15,24 211:2 232:7 241:6 242:4 248:3 118:16,17 149:21 9:22.24 contacts [1] 117:1 database [2] 167:23 corrected [1] 187:2 creates [1] 93:7 demonstrated [1] 36:8 contain [1] 28:25 184:20 correction [2] 1:7,10 creating [2] 151:4 department [20] 32:8 **contained** [1] 202:18 date [3] 29:1 178:14 175:25 corrective [3] 150:8 33:19 45:4 54:13 78:3 224:13 contemplated [1] 94:24 179:12,13 crew [49] 11:14,19,24 84:25 87:21 109:2 148:10 Dated [1] 248:9 contemporaneous [1] 12:21 13:15 14:15 15:20 166:17 167:18 168:5.6.8 correctly [2] 7:20 169:14 88:5 dates [1] 230:1 16:4 19:21,23 20:13 23:4 178:12 188:13,19 190:14 cost [3] 227:18,22,23 **content** [1] 218:13 23:19 29:2,3 36:20 38:10 day-to-day [1] 165:24 197:21 211:24 Cougar [94] 1:25 4:17 40:24 42:2,3,5,9,15 contents [4] 137:1 162:4 davs [17] 97:5 178:14.20 departmental [2] 5:1,11 19:20,22 24:17 43:21 48:13,18 52:1 162:8,25 180:2 182:14 203:5,16 150:24 172:15 34:14,19,25 35:6,20,25 56:15 58:20 76:1,4 85:3 203:24 205:16,16 206:8 context [1] 64:25 departmentally [2] 37:13.25 38:6 47:12 85:3.10 93:19 94:12.18 206:10,14,15 209:5,6 157:19 168:4 **Continental** [1] 241:12 50:14,21 53:5 58:9 61:22 95:1,1,23 119:23 120:10 246:17 92:2 98:12 101:20 102:6 departmentals [1] continue [1] 14:14 121:12 125:16 131:6 daytime [1] 37:25 102:10 104:9,17 109:1 149:1 140:16 190:23 210:25 **continues** [1] 17:22 109:22 110:4,6,13 111:4 de-ice [1] 77:13 departments [10] 89:7 228:17continuous [2] 135:7 111:5 115:4 119:18 125:3 deal [11] 47:13 52:23 148:6,7 149:14 169:1,13 crewing [1] 169:9 226:10 126:6,11,18 131:15 54:12 145:25 161:20 189:8 195:10 198:19 crews [16] 20:24 21:4 contraband [1] 5:2 132:16 134:6 136:17 162:14 167:8 185:5 240:15 23:1 85:1,4,4 88:2 96:12 137:2.9.18 143:17 145:23 contract [9] 51:5.5 69:18 205:18 215:11 231:5 departure [1] 16:20 96:25 97:1 121:6.17.21 146:19 147:11,22 148:9 80:5 82:8 90:16 105:5 dealing [6] 19:21 33:20 **depending** [5] 19:8 143:23 227:13,14 148:16,21,24 149:20 210:22 212:16 184:13 186:3 189:2 21:14 127:8 143:12 151:1,3,13 152:1,18 criteria [1] 77:25 contracted [2] 48:3 207:10 197:21 153:4,25 154:13 156:12 criterias [2] 167:24 49:11 dealt [8] 31:15 32:8 51:10 160:10 171:18 177:17 **depicted** [1] 233:15 169:19 contractors [2] 62:15 185:21 189:18 219:24 183:3 185:9 186:3 191:22 deployed [1] 35:17 critical [5] 65:23 109:14 149:7 223:4 232:6 192:24 193:6 194:4,9 deployment [3] 36:9 125:14 172:19 184:10

#### Discoveries Unlimited Inc., Ph: (709)437-5028

Index Page 5

#### conformance - deployment Offshore Helicopter Safety Inquiry

#### Multi-Page<sup>TM</sup>

#### depth - employee Offshore Helicopter Safety Inquiry

-			Offshore Heli	copter Safety Inquiry
38:5 65:5	199:8,12,13 200:6 215:5	distinguished [1] 152:9	201:4,21,22 202:1 205:20	52:15 55:20 62:24 63:4
depth [1] 8:2	216:21 219:12 239:14	distress [3] 109:23 110:5	217:6 218:14 219:8 223:9	63:19 66:1,21 74:16 87:5
<b>describe</b> [11] 2:15 104:20	244:23,24	111:5	243:19	94:6,17 122:5 166:4
118:13 124:6 125:5	differential [1] 69:10	distribute [1] 117:11	downgrading [1] 116:8	210:19,24 227:20 effected [1] 125:22
126:17,19 156:7 210:15	differentials [2] 67:16	ditching [3] 13:1 14:3	downwards [1] 15:3	
217:23 225:23	69:12	16:23	downwash [1] 93:7	effecting [1] 65:23
<b>described</b> [4] 14:12 26:4 123:4 156:5	differentiate [1] 42:7	diversified [1] 35:7	draw [1] 53:20	<b>effective</b> [8] 52:16 63:24 68:17 69:1 93:4 153:17
description [3] 22:4	differentiation [1] 77:6	divided [2] 187:16	Drawing [1] 102:22	154:16 217:10
25:11 38:19	<b>difficult</b> [4] 18:24 171:13	188:17	drifting [1] 93:5	effectively [4] 75:17
design [6] 7:15 221:8,12	173:4 233:20	<b>division</b> [2] 147:19 157:14	drill [3] 119:12,14,16	93:15 95:15 218:15
238:23 241:22 242:2	dig [2] 167:17 195:22		drilled [1] 75:20	effectiveness [1] 36:7
designate [1] 89:3	<b>diligent</b> [1] 98:7	<b>divisional</b> [1] 192:18	drilling [1] 241:10	effects [1] 176:11
designated [1] 10:25	<b>ding</b> [1] 176:8	divisions [1] 167:20	driven [1] 29:4	efficient [3] 214:18
designed [12] 6:2 7:11	<b>direct</b> [5] 24:24 96:24 193:20 234:7 240:25	<b>DND</b> [3] 101:21 110:1,2	drop [1] 243:24	218:12 219:3
9:2,17 14:5 22:19 62:24	<b>directed</b> [1] 244:15	<b>doctor</b> [6] 48:14 49:25 50:15 51:17 52:10 101:10	<b>Dropable</b> [1] 63:7	efficiently [1] 244:6
65:13 144:4 221:15 222:2	direction [3] 100:8	<b>doctors</b> [1] 49:10	droplet [2] 77:5,7	effort [3] 147:8 221:9
222:5	191:18 192:12	document [14] 23:20	dropped [2] 63:12 72:16	239:18
<b>desirable</b> [2] 206:7 207:17	directly [3] 16:4 49:14	111:9 113:3,16,25 115:23	Drover [4] 43:8 91:24	egress [2] 7:22 14:14
	49:16	119:3 129:25 147:6 160:1	108:25 110:1	eight [2] 36:13 170:17
desire [1] 172:24	director [9] 44:15 55:3	165:20 187:12 238:18,20	drug [4] 167:23 210:11	either [18] 2:17 3:2 7:1
<b>destination</b> [2] 4:24 17:2	97:17 163:17 197:22	documentation [3]	210:16 213:8	9:9 11:21 19:20 49:24
detail [5] 27:20,24 52:15	199:16 200:21 205:22,23	129:10 148:14 232:23	dry [2] 138:22 143:9	83:22 87:10 88:2 152:4 163:2 179:3 186:9 192:4
156:7 237:24	directors [2] 200:25	<b>documented</b> [2] 146:23	dual [5] 65:18,21 123:13	220:3 221:6 222:11
detailed [4] 133:7 153:24	240:14	147:16	229:6 230:18	<b>elected</b> [1] 125:16
226:23 238:2	<b>discipline</b> [1] 216:21	documents [2] 136:13	due [2] 8:1,8	electronic [11] 5:4 177:4
details [8] 26:7 28:3,12	disciplines [1] 124:13	137:8	dunker [2] 59:23 238:25	177:8 179:5 182:20 183:5
28:17 29:6,16 115:2	<b>Discoveries</b> [2] 248:12	<b>doesn't</b> [6] 30:6 60:24 148:6 149:10 195:22	during [14] 9:3 11:13	183:22 184:19 185:8,10
177:15	248:14	239:9	12:19 14:8 30:24 42:12 42:13 44:25 46:3 139:4	185:19
detectable [2] 22:23	<b>discretion</b> [1] 107:19	don [6] 6:11 13:4 15:10	144:17,24 205:14 208:12	<b>electronically</b> [3] 179:7
68:1	<b>discussed</b> [4] 135:6 141:15 224:3 230:14	15:20 16:20 139:11	dust [2] 9:1,10	180:4 211:20
<b>detection</b> [1] 22:25	discussing [1] 71:25	done [40] 24:10 38:21	duties [3] 57:24 58:12	element [3] 94:8 95:24 166:25
<b>determination</b> [2] 31:14 33:22	discussion [6] 34:12	39:25 43:23 44:18 45:4	169:12	elements [1] 175:23
determine [2] 33:20	98:11 156:11 225:19	57:3 58:10 78:12,12 79:4 79:5,6,23 87:11 99:24	duty [1] 115:6	Elevated [1] 178:25
116:7	230:10 233:13	102:24 103:6,11,15 106:2	dynamic [2] 78:11	elsewhere [3] 66:6 84:16
determined [3] 48:10	discussions [8] 137:4	106:19 120:12 122:8	125:13	244:19
106:3 147:15	208:4,7 209:13 226:16	134:21 153:14 158:17		<b>ELT</b> [2] 11:4,7
develop [8] 22:6 62:12	226:20 228:21,24	162:20 167:11 168:22	-E-	embarking [2] 5:22 12:9
153:5,22 168:7 174:24	disembark [1] 15:25	169:14 180:3 208:1,18 211:13 219:19 225:16	e-mail [3] 28:3 44:18	embedded [5] 150:14
222:19,21	disembarking [2] 5:22	239:4 244:5,6	120:19	154:22 155:23 157:5
<b>developed</b> [17] 34:20	12:9	<b>Donning</b> [1] 6:12	e-mailed [2] 115:12	170:6
91:21 121:20 147:12,23 155:14 163:11 170:24	disparaging [1] 245:1	<b>door</b> [17] 10:21 13:17,17	179:5	embodied [1] 230:25
190:20 196:21 214:8	<b>dispatch</b> [21] 26:19 40:6 75:24 78:3,9,20 84:24	13:18 41:2,11,15,15,19	E452 [3] 5:24,25 6:16	embolism [1] 8:8
215:21 219:5 220:20,24	87:21,24,25 88:1,7	45:3 54:11 75:18,19	early [2] 153:5 209:15	embraced [2] 235:9
238:12,16	110:17 111:6,10 115:18	123:21 178:19 184:3 233:4	Earplugs [1] 5:21	245:3
developing [2] 220:21	169:9 211:4 239:22 240:1	doors [6] 20:15,15 74:25	EASA [2] 90:19 91:11	emergencies [1] 219:5
239:7	245:7	86:25 87:4,5	easier [2] 6:11 10:1	<b>emergency</b> [44] 3:9 6:22
<b>development</b> [4] 154:11 191:10 235:9 241:11	dispatched [1] 120:5	<b>Doppler</b> [1] 93:13	easily [2] 8:10 234:3	7:11 9:4 10:18,23,24,25 11:2,4,12,22 12:25 13:7
deviate [2] 26:11 198:25	<b>dispatcher</b> [4] 43:25 111:11 113:16 213:7	doubt [3] 235:11 245:11	east [6] 35:12 56:22 126:3	13:15,19,24 15:17 16:23
deviations [1] 199:6	dispatchers [1] 121:20	246:21	131:25 237:12 246:7	36:9,13,15 38:1,2 39:9
device [4] 8:19,19 68:3	dispatching [1] 46:6	down [59] 9:18 12:15	easy [2] 150:15 162:9	44:4 51:19 110:17,19,24
73:18	disseminate [1] 33:16	16:18 39:16 56:9 59:20	EBS [1] 59:21	115:20 117:10,19 120:9
dialogue [2] 29:2,8	disseminated [1] 217:9	77:22,23 84:19 87:7 94:4	edge [1] 241:12	131:2 146:10 170:5 218:7 218:16 223:25 224:2
difference [11] 42:3	dissent [3] 218:24 219:2	96:12 102:5 112:21 115:18 116:4,9 122:5,17	edition [1] 127:11	225:5,6,7
67:16,18,19 74:12,17	219:6	124:20 125:11 128:25	educate [2] 157:17 188:9	emerging [3] 158:25
85:6,21 100:14,20 118:6	distance [2] 241:12	129:2,8 133:10 143:11	educated [1] 157:25	235:15,17
different [31] 1:22 33:23	244:2	149:12 151:23,25 152:13	educates [1] 182:11	emphasize [1] 118:6
58:3 69:15 72:12 92:16	distances [2] 242:23	152:24 159:12 161:3 162:17 163:8 165:12	education [6] 75:23	employ [3] 53:6 80:12
97:21 99:22,23,25 100:5 114:11 129:21 142:5	244:7	166:12 167:2 169:1,17	157:21 158:2 160:21 161:9 204:2	229:16
164:11,21 177:20 180:12	distilled [1] 214:5	172:6,8,17 174:21,25	effect [18] 41:3 51:12	employed [1] 224:8
187:22 188:3 195:18	distinguish [1] 181:21	179:8 188:7 197:14 198:2	41.5 51:12	employee [11] 148:8
	-			

Discoveries Unlimited Inc., Ph: (709)437-5028

Multi-Page<sup>TM</sup>

# employee-base - fairly Offshore Helicopter Safety Inquiry

•			Offshore Heli	copter Safety Inquiry
155:4 177:9 185:16,18	entails [1] 150:4	154:15 155:15,24 162:8	expertise [1] 222:7	31:6,12,24 32:6,18,23
186:2 191:2 193:8 194:4	enter [1] 177:11	165:9,11,17 187:7 188:8	experts [2] 204:3 222:7	33:12,17 34:4,8 38:13
194:9 214:3	entered [7] 17:19 29:7	206:3 232:18	explain [17] 2:21 25:22	40:8 41:5,10,14,18,25 42:19,24 43:3,14,18 44:7
<b>employee-base</b> [1] 211:21	29:16 136:11 198:10 202:11,17	everybody's [1] 155:13 Everything's [1] 155:23	62:9 64:20 73:6 85:23 92:1 96:16 133:1 171:17	45:2,8,17,24 46:15,21
employees [16] 149:22	,	evolved [1] 34:24	173:7 177:1 180:8 183:9	47:3,8,17,22 48:5,19,24
150:15,17,23 152:22	entering [1] 15:2 entire [3] 12:19 161:17		183:12 194:25 220:9	49:3,8,15,23 50:12,18
153:7 157:12 168:6 185:8	194:18	<b>ex</b> [1] 53:13 <b>ex-military</b> [2] 37:2	explaining [1] 67:8	50:25 51:14 52:7,19 53:9 53:23 54:8,16 55:6 59:13
187:9 193:3,23 212:20 216:10,15 217:10	entity [3] 91:13 106:13	53:2	explains [2] 40:6 84:14	60:6 61:11,20 62:1,6
employees' [2] 148:11	108:17	exactly [6] 28:5 107:24	exported [1] 151:6	64:1,12,17 69:21 70:2
149:13	entrance [1] 10:21	171:9 198:20 214:16	express [1] 246:18	71:21,24 72:23 73:9,23 74:9 78:19,25 79:10,16
empowered [1] 149:23	environment [9] 39:24	216:8	extended [2] 66:16 79:8	79:22 80:2,20 81:5,9,17
enable [2] 38:7 172:2	93:1,7 148:1 174:1	EXAMINATION [1]	extensive [3] 53:17	81:22 82:2,18,22 83:2,6
enables [1] 91:25	187:18 193:21 202:4 244:15	2:11 examines [1] 67:15	62:18 148:13	83:10,16,21 84:1,9,17
EnCana [1] 200:3	environments [1] 244:9	example [21] 31:1 32:7	exterior [1] 221:3	85:8,14,20 86:2,19,23 87:9,16 89:11,17 90:10
encompasses [2] 147:25	equal [1] 76:11	44:17 46:18 54:17 61:6	<b>external</b> [9] 148:19 194:15,21 201:9,10,13	90:20,25 91:6,23 96:1
148:6	equipment [38] 4:21 5:5	63:1 67:22 77:21 93:24	202:23,25 203:3	97:2,9 98:10,17,22 99:4
encounter [1] 37:21	7:17,18 37:5 40:19,25	168:15,21 173:18 175:2	externally [2] 11:15	99:9,15 100:19,25 101:4 101:9,14,18 102:8 103:19
<b>encourage</b> [2] 192:15 204:13	46:12 49:19 50:7 51:12	175:2,9 202:1 218:15 226:12 242:20 245:3	220:11	104:3,16,24 105:9,15
encouraged [2] 185:2,3	61:8,12,13,15,22 62:19 62:23 63:18 64:8,9,21	examples [1] 154:7	extinguisher [1] 3:10	106:22 107:2,7,17 108:6
encour aged [2] 185.2,5 end [18] 20:10 30:4 63:11	64:22 65:3,4,8,15 66:17	exceed [1] 37:15	extinguishers [1] 11:9	108:11,23 109:8,21 110:11,23 111:13,18,25
63:15 72:18 94:8 110:5	88:10,15,20,22 93:18	exceeds [4] 60:8 147:13	extra [2] 7:23 242:9	112:8,18,22 113:4,8,12
158:23 166:11 172:12	131:3,4,4 134:24 135:1	157:3 161:19	extract [2] 39:17 123:18	114:1,9,15,21 116:15,19
173:10 177:8,23 179:3	<b>equipped</b> [5] 6:3,18 39:14 65:17 125:20	excellent [1] 183:23	extracted [1] 122:14	116:23 117:2 118:2,12
181:17 197:23 198:2 216:1	escape [3] 7:13,24 10:6	exception [1] 80:24	<b>extraction</b> [2] 94:7 125:23	119:11,17 121:25 122:19 123:2,8 124:4 125:2,25
<b>ENDED</b> [3] 17:6 38:12	escort [4] 12:3,3 16:5	excess [1] 208:24	extractions [1] 95:16	128:9,14,20 129:1,5,17
151:10	17:4	<b>exclusive</b> [1] 105:4	Exxon [3] 202:13 203:19	130:1,5 131:13,22 132:4
ends [2] 60:23 185:17	escort's [1] 16:12	exclusively [1] 36:16	203:21	132:9,13 133:14 134:8 134:15 135:9,14,19 136:9
endurance [2] 7:25 10:3	especially [5] 54:6 69:5	<b>exercise</b> [7] 12:5 115:25	<b>eye</b> [1] 49:22	136:25 137:22 138:9
Energy [1] 82:9	75:1 147:18 236:25	118:11,21,23,24 119:1 exercised [2] 118:8	eyeglasses [1] 13:4	145:16 146:11 151:11
engage [1] 174:24	essence [2] 105:5 125:15 essential [5] 57:2 141:17	152:21	eyes [7] 148:22 167:17	152:14 153:21 154:5 156:4 158:4,11,20 160:8
engaged [6] 48:8 56:8 97:14,16,19 188:7	143:18 144:11 148:15	exercises [3] 37:18,19	168:1 172:16 176:7	161:10 162:1,5,18,24
engaging [4] 120:10	essentially [1] 127:1	118:10	204:13 206:25	163:6 164:6 168:11
168:6 211:3 226:9	establish [1] 117:22	exhibit [16] 1:11 17:19	-F-	169:23 171:1 173:2,17 175:1 176:16 178:5 180:6
engine [1] 96:17	established [2] 124:17	44:6 64:4,7 110:25 111:1 111:2 126:10 136:16	·	180:24 181:3,8,14 182:19
engineer [1] 213:7	172:4	161:13,13,18 194:17,22	FAA [6] 89:24 90:2 96:2 96:23 98:24 99:3	182:23 183:8,17 185:7
engineering [5] 136:5	estate [1] 221:5	198:10	<b>fabricated</b> [1] 187:12	185:13,25 186:7 187:14 188:16,22 189:9,16 190:1
190:23 205:22 221:8	estimate [1] 115:21	exhibits [5] 17:24 72:25	facet [1] 56:5	190:6,11,17 191:21 192:3
222:6	Estimated [1] 4:23	114:10 136:11 202:11	facilitate [1] 157:16	192:22 193:4,12,17 194:2
<b>engineers</b> [5] 44:22 54:18 169:8 189:11	<b>Europe</b> [6] 56:11 91:12	<b>exist</b> [2] 146:20 239:9 <b>existing</b> [2] 41:15 177:13	facilitated [1] 155:14	194:8,13 195:6 196:23
190:14	91:17 127:4 159:4 160:10 <b>European</b> [6] 90:21 91:1	exists [1] 154:8	facilitation [1] 157:10	197:16 198:7 199:10,18 200:4,9,13,24 201:8
enhance [1] 58:3	91:8,11 145:7,9	exit [4] 13:7,16,24 221:6	facilities [4] 86:7 149:2	202:10 203:1,6,12,17
enhanced [4] 42:17	evacuation [5] 13:14	exits [8] 3:10 10:18,22	200:19 238:22	204:5,9,17,23 205:8,13
223:25 225:7 237:25	39:8 52:9,16 100:15	10:24,25 11:1,3 13:19	<b>facility</b> [14] 20:11 42:11	206:13,19 207:19,25 208:20 209:4,9 210:3,9
<b>enhancement</b> [2] 224:6 226:18	evacuations [1] 99:17	expect [4] 22:13 90:6	45:23 46:13 49:20 84:13 85:7 86:17 88:3 136:5	212:13,21,25 213:5,11
enhancements [3] 226:3	evaluation [2] 34:2 48:4	224:14 243:15	178:19 184:2 185:4	214:9,20 215:2,9 216:3
226:4 228:3	evening [1] 246:22	expectation [1] 30:20	192:16	216:9,18 217:12,20 218:21 219:21 220:7,14
enhancing [1] 226:14	event [30] 11:12 12:25	expecting [2] 116:24 117:3	<b>fact</b> [11] 46:2 52:4,9 70:25 87:3 92:11 94:21	221:19 222:1,9,15,20,24
enjoy [3] 17:5 204:3	26:5 27:23 29:1,2,10 30:5,7,7 35:23 167:16	expedite [1] 108:9	179:11 192:15 226:14	224:10,25 225:12 226:1
246:6	171:23 177:12 178:3,8	<b>experience</b> [20] 35:7	241:13	227:21 228:1,7,11 229:18 229:25 230:6 231:2,8,22
<b>ensure</b> [16] 6:17 14:19	179:6,24 180:8,17 181:17	36:22 37:3 55:18,21	factor [3] 165:20 168:1	233:8 234:5 235:14,22
16:5 117:11 146:8 147:1 149:4 153:6 155:5 164:24	182:5 184:11 185:20 192:4,9,23 193:5,7 232:4	56:22 57:2,8,10 58:6,7	172:23	237:2,11,17 240:9
166:21 169:2,13 199:7	events [7] 121:12 165:8	59:7 76:5 172:2 206:25 227:1 234:11 235:1,2	<b>factors</b> [4] 56:20 165:4 166:2 175:7	failed [1] 213:8
206:11 232:17	177:18,18 178:1 180:11	245:21	<b>Fagan</b> [349] 1:4,5,19,24	failure [1] 96:17
ensured [1] 170:8	219:10	experienced [3] 36:24	2:6,11,12 3:4 4:11,12	<b>fair</b> [5] 61:14 73:15
ensuring [2] 8:24 232:6	eventuality [1] 121:17	57:25 246:17	17:7,18 18:7,13 19:4,14	185:21 215:3 237:3 <b>fairly</b> [10] 46:4 62:18
entail [1] 58:23	<b>everybody</b> [15] 120:21 150:18 152:9 153:17	expert [1] 203:19	21:3,8,21 22:1 23:23 24:8,16 25:2,7 30:12	138:14 143:12 153:24
	130.10 132.7 133.17		27.0,10 23.2,7 30.12	

Discoveries Unlimited Inc., Ph: (709)437-5028

#### Multi-Page<sup>TM</sup>

#### fall - grasp Offshore Helicopter Safety Inquiry

175:9 224:12 241:11 243:20 244:6 fall [1] 146:21 fallouts [1] 226:17 falls [2] 109:12 181:15 familiar [4] 74:20 142:9 173:22 176:21 familiarization [4] 20:9 20:11,22 90:8 familiarize [3] 4:20 6:15 97:25 family [1] 216:15 fan [2] 33:6,8 far [11] 68:22 100:4 157:3 159:7 166:18 172:21 179:22 195:23 223:12 243:11.22 FAR/JAR [1] 221:16 **fashion** [5] 52:18 65:12 75:2 179:16 236:8 fast [6] 77:3,11,12 159:10 178:21.24 fasten [2] 12:12,14 fastened [3] 15:23 232:18 233:6 **fatality** [1] 125:24 feature [1] 123:5 features [3] 4:21 6:15 6:18 February [3] 1:1 248:4 248:10 Federal [1] 35:3 **feeling** [2] 191:7,12 feet [3] 15:4 94:3,5 fellow [1] 186:20 few [9] 14:2 28:14 52:3 128:8 138:10 149:9 154:12 231:20 241:19 field [1] 245:25 fields [1] 167:19 fifteen [4] 75:7,14,19 76:11 **fifth** [1] 127:11 fifty [1] 214:11 **fighting** [1] 54:4 figured [1] 32:12 **file** [5] 12:4 16:13 29:5 179:21 183:25 files [1] 29:4 **fill** [3] 184:17,23 185:5 filled [3] 33:1 185:15,17 final [1] 166:11 finalizing [1] 89:23 finally [3] 170:6 239:21 240:16 finance [1] 165:12 financial [1] 147:1 **finding** [1] 18:23 **findings** [5] 133:8,19 149:11 206:21.22 **fine** [3] 2:4 40:9 94:16 finger [1] 131:1 float [1] 225:1

**finished** [3] 23:12,13 47:10 **fire** [7] 3:10 11:8 54:4 85:7,17 89:7 131:2 **firearms** [1] 5:3 first [52] 3:11 9:6 11:11 22:8 26:12 34:9,10,14 34:18,20 38:18,20,23 40:5,14 42:17 43:13,15 44:13 46:17 55:9 58:24 62:12 65:1 66:22 75:21 102:19 104:6 108:9 110:3 110:7 112:6 120:3 123:24 123:25 146:1 151:16 154:10 171:20 174:7 177:12,24 194:25 197:1 199:11,25 213:18 218:24 225:4 226:15,19,25 **fit** [8] 33:7,16 38:17 140:15 198:11,13 221:14 233:1 **fits** [2] 83:1 138:23 fitted [3] 6:21,23 76:10 fitting [2] 138:20 232:19 five [16] 3:13,13 32:11 66:8 68:25 69:3 70:1 89:10 103:16.17 106:19 116:6 203:5,16 205:16 206:14 fix [1] 19:10 fixed [9] 4:7 105:22 141:25 158:12,15 235:25 236:3,21 245:10 **flameproof** [1] 143:21 fleet [6] 71:5 89:21 178:16,22 182:17 229:21 fleets [1] 163:22 **flew** [1] 236:21 flies [1] 92:13 flight [85] 2:25 3:2 4:6 4:23 11:13,14,18,24 12:1 12:20,21 13:15 14:15 16:20 17:5 23:4,19,21 27:20 29:2,3,5,6,15 33:11 37:18 39:10 40:23 43:6,21 44:16 47:19 48:15 56:20 58:11,15 78:4.12 88:8 89:1 94:12 94:18,22 95:1,1 96:13 96:22 100:15 115:4 119:23 121:6.12.20.21 135:2 139:4 140:16 141:7 142:7 143:23 164:16 165:15 175:21 187:25 188:8,15 189:1,4,15,17 195:12.12.19 196:6 200:21 205:23 211:2,4 213:13 216:22 217:17 228:18 233:5 236:23 237:24 flights [6] 35:2 88:25 128:3 147:4 211:4 225:18 FLIR [23] 67:1,2,8 68:1 68:3 70:23 71:3 72:1,2,4 72:5,8,10,15,16 73:6,20 80:22,25 82:14 123:3,15 124:8

floatation [11] 6:3 11:20 11:23 223:15,18 224:1,2 224:12 225:4,5,7 floating [2] 70:4,8 floats [3] 223:13 224:14 224:17 **floor** [1] 165:23 flows [1] 52:14 fluent [1] 148:9 fly [15] 30:16 66:7 76:17 77:1 92:9,20 93:25 94:2 95:4 96:19 131:7 135:2 139:6 243:1,22 flying [13] 42:4,5 71:16 95:7 131:5 163:25 164:14 175:16 227:14 236:10 238:24,25 245:4 focus [4] 42:16 176:3 184:15 196:8 focused [1] 71:13 folks [3] 89:7 103:5 233:23 follow [11] 12:2,3 14:12 16:5.10.12.24 25:3 90:9 164:13 228:25 followed [2] 136:7 198:25 **following** [6] 9:6,16 115:4 120:24 211:5 228:19 foot [2] 87:5 140:11 forbidden [1] 5:4 force [2] 18:23 20:19 forceful [1] 9:23 forcefully [1] 9:20 Forces [1] 54:23 forearm [2] 7:4 15:11 forecast [1] 78:4 forecasting [1] 79:23 **foregoing** [1] 248:3 **foreign** [1] 160:19 forgets [1] 184:8 forgotten [1] 157:22 forklift [1] 171:4 form [13] 9:13 28:20.24 28:25 29:11 30:5 32:15 32:17,25 33:1,1 117:10 117:12 formal [2] 133:4 225:16 format [3] 156:25 215:22 227:6 former [1] 36:20 forms [1] 117:9 forth [4] 71:7 98:1 171:13 186:16 forum [1] 191:6 forward [29] 10:20 11:14 11:17 66:4 67:14 72:1 124:7 150:3 155:1,7 156:10 163:16 167:11 169:21 187:5 207:4 208:6 210:22 213:15 214:13 217:9 223:23 227:2 229:14,15 230:12 233:18

239:17,22 forwarded [2] 133:9 218:16 fostered [1] 159:24 found [5] 68:16 75:25 124:17 184:9 211:13 **four** [14] 32:10 69:24 83:3,7,11 84:2 103:17 116:6 179:23 195:10 202:20,21 230:2 239:25 four-point [1] 12:13 **FPSOs** [1] 131:17 frame [1] 59:9 free [3] 13:20 16:6 130:16 freely [1] 150:4 freezing [5] 76:13,24 77:1,6 178:18 frequent [1] 109:16 frequently [1] 171:25 fresh [1] 148:21 front [15] 3:3 9:24 11:5 12:6,23 13:5 15:21 16:21 56:15 128:4 160:6 176:8 178:19.19 183:12 fuel [26] 21:18,23 22:8 22:10,11,17,19,21 23:2 23:6,9,14 41:20,24 43:19 66:15 78:2,15 86:17 127:6,6 130:14,14,15,25 221:13 fuelled [2] 41:20,21 fuelling [3] 22:18 127:6 137:17 fulfilled [1] 189:24 full [19] 34:2 38:7 39:20 55:11 71:11,12 72:20 73:8 74:3 82:13 85:4 87:5 94:2 119:6 125:21 152:11 160:2 163:12 202:15 full-time [1] 36:17 **fully** [5] 55:16 156:8,14 223:8 227:15 **function** [2] 115:10 120:20 **functional** [1] 8:16 **functions** [2] 46:10,11 **furious** [1] 159:10 **fuselage** [1] 76:22 future [3] 57:20 230:21 234:8 -G-Gain [1] 204:10 gaining [1] 161:8 Galliano [4] 79:13 81:16 86:6 87:1 Galveston [1] 127:23 Gander [9] 35:14 101:23 102:3,11,20,22 103:2,6 103:18 gas [5] 35:24 82:3,5 128:2 216:16

gather [1] 117:7

gathered [1] 121:11 gauge [1] 8:25 gear [1] 219:13 general [13] 6:8 69:6,7 124:25 129:12 148:7 151:25 165:5 166:6,14 169:22 182:16 189:19 generally [4] 42:2 43:9 141:9 154:25 generated [3] 148:14 179:7 180:4 generates [1] 211:20 **generation** [5] 71:2,3 165:7 241:15 242:24 generations [1] 70:25 generative [3] 150:12 150:21 151:1 generic [1] 122:11 gentleman [1] 209:16 gentlemen [1] 1:3 Gerber's [1] 97:15 given [12] 94:14 107:19 121:19 124:2 216:25 223:14,17 225:17 235:21 240:12,19,20 glad [2] 144:14 244:13 global [3] 127:17 151:8 200:12 globally [3] 148:5,10 149:2 gloves [5] 7:4.5 13:5 15:11 139:9 go-forward [1] 133:20 goes [20] 29:25 30:8 33:4 33:9 44:19 65:16 115:13 120:5 135:23 138:25 141:7 157:25 165:21 174:8 176:1 178:10 179:6 181:4 186:14 196:11 goggles [14] 18:4,8,18 18:24,24 19:7,10 63:20 66:23 70:24 233:10,14 233:21 234:2 gone [6] 28:10 76:6 110:2 126:1 170:20 171:10 good [40] 1:3 52:3.6 54:21 57:4,7 58:14 64:25 66:2 106:10 128:7 130:24 130:25 131:11 138:7 143:4,8 144:3 148:22 155:8 167:5 171:2 172:11 176:25 187:2 196:19 198:3 203:25,25 207:6 207:13,15,16 208:13 209:18 210:2 211:14 226:6 233:5 246:1 govern [1] 147:17 governed [3] 98:24 147:5 151:24 government [10] 35:4 90:16 105:18 106:14,21 106:23,24 109:19 165:1 201:16 grab [2] 63:14 88:8 grabbing [1] 161:9

Discoveries Unlimited Inc., Ph: (709)437-5028

Index Page 8

grasp [3] 9:8 153:8

Multi-Page<sup>TM</sup>

redruary 3, 2010		Multi-1 age		copter Safety Inquiry
159:22	hall [3] 85:7,17 165:12	91:1,24 92:3 100:6 104:8	help [8] 4:20 15:18 41:3	hose [1] 9:11
grasped [1] 150:18	hand [10] 7:1 9:10 16:6	110:1,3 119:23 129:18	66:15 162:20 174:24	HOSE [1] 9.11 HOTF [11] 18:21 203:20
	96:24 102:3,3 160:7	132:14 134:10 152:15,16	179:4 214:23	213:18 214:1,10,22
grates [2] 77:21,23	174:5 186:14,14	158:6 176:17 180:7	helped [1] 239:17	215:11,12 217:25 223:21
great [11] 58:7 98:6 104:1 119:2 145:3 167:8	handle [7] 13:17,20	182:24 203:18 223:7,14	helpful <sub>[2]</sub> 111:2 162:6	233:18
180:4 188:12 191:4	14:18 75:3 137:15 166:25	234:10 248:4	helping [3] 97:1 123:18	hour [15] 4:24 28:15
196:15 233:19	213:19	hearing [1] 248:4	162:6	30:22 39:2 40:6 42:8,9
greater [1] 242:12	handled [1] 111:5	heart [5] 46:24,25 51:2	helps [2] 179:11 239:12	47:4 72:14 73:14,17
greatest [1] 221:16	handles [2] 11:2 48:3	156:1 234:25	hereby [1] 248:2	85:11 121:24 224:4 228:18
green [19] 8:25 78:6,7,8	handrail [1] 16:7	heat [2] 67:21 70:10	HFDM [1] 165:14	hours [20] 28:23 29:20
78:13,13,13 79:23 88:17	hands [3] 7:3 15:10	heavily [2] 53:13,20	<b>hi</b> [1] 102:3	30:1,4 31:22 32:3,11,19
133:22,24 134:1,3 135:4	46:13	<b>heavy</b> [5] 152:7 241:6,8 241:15 242:9	Hibernia [3] 132:15	32:20 37:8 42:25 58:13
172:9,12,23 173:15 239:11	handsfree [1] 94:1	HEBBO [2] 183:13,16	134:6 239:16	58:15 72:14 214:17
Greenland [8] 82:10,11	hangar [13] 44:20 65:1	height [1] 93:21	high [12] 54:4 66:13	226:22,22 240:15,15,16
82:17,19 83:15 98:16	74:25 76:5 86:20,20,25 87:4 115:13 120:14	held [1] 160:20	70:14 82:14 134:20 135:4	<b>house</b> [5] 67:20 86:11 163:24 165:22 202:6
99:6,10	175:22 176:5,9	heli-admin [4] 3:24 8:17	135:5 182:7,8,11,14 239:15	_
gripped [1] 9:18	hangars [1] 86:8	8:21 16:4	<b>higher</b> [4] 155:14 174:14	<b>hover</b> [19] 38:6 82:14 92:23,23 93:5,12,22
gripping [1] 9:15	hanger [4] 80:8 85:11	helicopter [91] 3:22,25	197:25 245:9	98:13 144:20 228:21,22
gross [1] 74:1	188:7 197:2	5:8,12,17 6:21 7:10,14	highest [1] 152:24	229:1,7,11,16 230:20,24
ground [12] 27:6,13,14	hangers [1] 84:16	7:22,25 8:17,21 10:18	highlight [1] 161:6	231:5,17
30:18 36:12 37:9,17,17	Hank [3] 2:10 44:16	11:20 12:4,7,11 13:10	highlighted [1] 62:10	HS&E [1] 194:1
58:10 92:22 178:16,22	102:15	13:12,22 15:21 16:10,11 16:13 17:3 18:22 20:4	highlights [1] 171:20	HSE [1] 170:2
grounding [1] 182:17	Hansen [2] 5:23 144:2	20:12,18,20 25:9,12,14	highly [6] 36:18 57:25	HUEBA [10] 6:22 7:10
group [32] 27:11 28:13	happening [2] 186:18	30:16,22 33:21,23 36:12	195:23 196:4,7 245:22	7:20 8:19,23 9:5 10:9
45:13 49:9 53:15 56:21	197:6	64:14,19 76:10 91:18	hip [1] 88:12	14:1,7 17:12
57:4 148:3 152:7,11 157:19 163:16,22 164:17	hard [8] 9:19 112:23	92:1,10,12 104:17 108:13	hire [6] 36:23 42:9 53:13	huge [1] 95:22
176:19 198:16 204:3	128:15 149:20 150:1	109:23,24 110:4,8,13 111:4,6 119:19 123:3	53:21 54:9,19	human [2] 70:4 147:1
213:21 214:3 215:11,25	161:18 174:20 245:7	125:4,6,7 126:18 136:11	hired [3] 36:21 57:15	humanitarian [2] 104:12 107:12
215:25 216:1,4,6,25	hardware [1] 230:23	136:14,15 137:10,12,20	227:10	hundred [2] 214:11,12
217:7 227:3 228:17	harness [1] 12:13	141:7 145:5,8 146:1,1,3	history [6] 101:25 174:9	
234:15 240:13,24	harsh [1] 244:9	147:10,21 152:2 158:13	187:24 194:21 235:8	<b>hung</b> [1] 61:4
group-wide [1] 177:10	hatch [1] 13:21	158:15,22 159:2,17 160:24,25 161:4 165:15	237:3	Husky [4] 136:17 202:19 204:18 244:4
grouped [2] 211:14 214:18	hate [1] 46:22	192:5,7 205:15 211:2	hit [2] 59:11 185:19	hypothetical [2] 175:4
groups [5] 145:7 159:17	hazard [17] 166:3,8	217:16 234:18 245:25	hitting [1] 75:18	175:5
160:11,15 214:7	167:4 171:21 174:4 175:25 178:9,15 180:7	Helicopter's [1] 210:15	HLO [7] 20:5,9,17 22:17	
growth [3] 230:12,16	180:17,18,21 181:16,24	helicopters [49] 1:25	23:5 137:15 232:21	-I-
244:7	184:11,21,25	4:17 5:1 19:22 24:17	HLOs [1] 20:12	
guarantee [1] 86:14	hazardous [1] 56:23	34:19,25 37:14 50:14	<b>HMDC</b> [4] 131:16 132:5	
Guard [2] 127:13 142:20	hazards [3] 153:13 166:9	61:22 92:2 101:20 102:11 104:9 109:1 115:4 119:18	132:15 136:16 HMDC's [1] 132:22	ice [2] 77:4,22
guarded [1] 178:13	180:10	126:6,12 132:16 136:18		<b>idea</b> [7] 138:7 143:4 148:22 171:3 176:2 182:8
guess [8] 60:21 85:24	he'd [2] 122:9 240:25	145:24 147:12,23 148:9	<b>hoist</b> [32] 39:5,15 40:16 40:18 45:3 61:7,12 65:9	148.22 1/1.5 1/0.2 182.8
104:6 168:22 173:9	head [4] 67:23 70:9 88:9	148:17 149:20 151:2,3	65:10,18,21,25 66:1	ideas [1] 179:13
187:16 205:6 214:22	88:14	153:4 154:1 156:12 171:18 177:17 183:3	88:20 96:14,14 99:21	identification [1] 166:3
guide [1] 198:23	header [1] 60:22	185:9 186:3 191:22	100:1,4,9,22 101:6 121:5	identify [2] 198:17 234:1
guidelines [5] 159:21	heading [1] 197:3	192:24 193:6 203:8	122:1,6 123:14 124:14	<b>IFR</b> [1] 236:20
164:8,13,25 190:21	headquarters [1]	213:15,22 216:5,11 241:5	124:19,22 227:7 229:6 230:18	illuminate [1] 11:2
Gulf [10] 67:2 68:11,13	201:23	241:16 242:12,21	hoisted [1] 122:12	<b>illuminated</b> [1] 11:3
74:18 81:14 84:6 86:15 200:17 201:21 202:1	heads [1] 150:24	helicopters' [3] 146:19	hoister [1] 41:6	immediate [3] 19:10
<b>guy</b> [3] 27:4 180:1 191:13	headset [2] 13:2 16:19	235:19 240:18	hoisting [7] 37:21 38:4	78:9 124:2
<b>guys</b> [6] 56:6,11 57:4,7	headsets [2] 5:21 12:19	helideck [25] 16:1,8 19:19,21,23 21:23 25:15	92:3 96:16 123:15,21,22	immediately [13] 8:22
173:21 189:5	health [16] 48:10 148:1	126:9,24 127:5 132:14	hold [4] 8:5 10:10 16:7	13:13 30:2 36:5 88:1
gyros [1] 93:14	155:20 177:18 187:18,20	132:22 133:3,6,12,18,25	60:21	119:25 120:11,15,20,22
<b>5J 1 0 1 J J 1 1</b>	188:1,14 189:12,18,20 190:8 191:24 192:18	134:4,22 135:10,21	home [4] 42:14 51:24	121:4 193:25 224:6
-H-	190.8 191.24 192.18	137:14 192:6,8 232:9	86:11 177:5	immersed [2] 11:7
	hear [7] 2:19 12:20	helidecks [2] 126:13,15	hone [1] 37:24	165:16
HAI [1] 161:3	181:22 192:16 244:13,20	Helifuel [1] 130:12	honest [1] 75:21	<b>immersion</b> [3] 67:23
<b>half</b> [7] 3:13 30:22 69:12	245:17	heliport [7] 3:23 4:1	hood [6] 13:4 15:20 16:21	70:11 140:13
69:13 85:11 87:8 88:21	heard [36] 19:20 20:23	20:19 146:9 192:6 232:16	138:25 139:3,11	impact [4] 14:6,8 29:18 29:24
Halifax [7] 120:17 127:23 199:25 200:2,3	21:22 22:4 25:17 39:7	232:24	horizon [1] 144:23	<b>imperative</b> [1] 16:9
211:19 246:8	42:20 43:8 45:12 52:25	helitanks [1] 22:9	horizontal [1] 63:3	implementation [3]
	54:11 79:11 85:9 90:21	Helly [2] 5:23 144:2	horse [1] 122:5	
	1			

Discoveries Unlimited Inc., Ph: (709)437-5028

Index Page 9

grasped - implementation

#### Multi-Page<sup>TM</sup>

171:22

invited [1] 97:20

involve [1] 165:10

involved [21] 19:20

60:12.13 97:5 98:9

102:23 110:6 135:22

161:7 179:23 211:24

213:23 218:4

involves [1] 175:7 island [1] 105:20

198:18 202:6

219:24 220:8

140:20

225:19

233:19

**isolated** [1] 226:7

isolation [1] 146:21

185:6 188:9 189:19

122:4 174:10.16

181:11 231:24

95:7 109:23 135:20

jacket [1] 6:19

jeans [1] 143:3

jettison [1] 13:18

98:6 166:12 167:1

John [2] 46:23,23

108:21 115:3 117:17

join [2] 38:15 57:5

248:5,9

126:3,21 132:1 192:5,7

193:14 200:5,10 201:24

-J-

215:13

133:20 159:20 224:24	238:6	inspector's [1] 133:19
implementations [1]	industries [2] 147:10	install [6] 40:16 65:10
155:6	153:8	72:15 73:15,18 224:15
implemented [7] 66:3	industry [18] 81:20 98:6	installation [8] 15:22
156:8,14 157:2 223:8	102:25 148:20 159:1,2	72:10 223:15 224:18,21
227:19 240:4	160:11 167:13 173:21	229:11 230:18,23
	174:6 175:7 184:14 236:2	
implementing [2] 38:6	236:3 237:5 239:18	installed [12] 41:2,13,15
156:13	241:19 243:9	72:4,17,19 73:12,13
<b>important</b> [16] 6:5 10:10		121:6 224:14 230:22
14:2,3 16:22 25:19 71:17	inertia [1] 93:14	238:5
92:8 130:23 142:12	inflatable [1] 6:19	instance [2] 75:6 178:18
151:22 152:12 156:2	inflate [3] 14:19 15:2,7	instances [1] 142:1
160:17 182:3 230:13	inflated [1] 15:5	instead [4] 165:14 184:4
<b>importantly</b> [2] 27:12	inflation [2] 14:25 15:6	220:16 227:12
123:20		<b>Institute</b> [1] 20:6
impossible [1] 93:3	inform [4] 11:14 108:4	
improbable [1] 174:6	108:12 144:22	institutions [1] 238:23
-	information [36] 6:6	<b>instructed</b> [3] 15:25
improve [3] 92:5 208:1	19:2,17,23 24:25 25:17	17:4 232:25
225:2	28:5,7 60:15 68:20 115:5	<b>instruction</b> [1] 17:12
<b>improvement</b> [6] 135:7	120:12 121:11 126:13	instructions [6] 11:6
170:9 207:2,5,16 226:11	145:6 150:9 156:10	12:2 13:14 16:10,12,24
<b>improving</b> [2] 234:9,14	159:25 161:8 162:13	
<b>in-house</b> [3] 59:24 167:6	163:21 194:16 203:20	instructor [1] 142:15
195:8	204:10 214:4 215:19,22	instrument [4] 92:9,12
Inc [2] 248:12,14	215:23 217:8,9 218:5	92:14 95:9
	225:21 234:11 240:11,20	instruments [2] 92:11
incentive [1] 233:2	244:17	92:13
incident [9] 116:7 167:4	informed [3] 117:13,19	integral [1] 96:15
178:9 180:8,17,20 184:22	132:16	integrate [2] 37:6 80:15
186:17 193:24	infrared [3] 66:5 67:14	integrated [12] 6:19 15:6
incidents [4] 134:24	72:1	72:20 80:19 96:18 146:18
146:6 147:9 187:3	inhale [1] 10:5	146:22 147:24 155:19
<b>include</b> [4] 174:12	inherently [1] 92:21	156:20 157:10 161:12
177:16 190:12,13		
included [7] 57:17 72:24	<b>initial</b> [3] 34:20 123:24 127:18	integrates [1] 146:24
72:25 148:1 155:19		integration [1] 96:14
217:13 225:21	initiate [1] 36:6	intensity [3] 66:13 82:15
includes [4] 40:23 119:7	initiated [1] 147:7	239:15
148:12 190:7	initiative [6] 147:20	intent [4] 98:3,3 228:25
including [2] 222:7	150:25 163:15 188:11	229:16
246:7	239:16,22	intention [1] 98:12
	initiatives [6] 150:21,24	interaction [1] 136:15
inclusive [1] 127:17	153:11 155:7 157:8 167:8	
increase [6] 8:9 225:9	injured [1] 14:6	interchange [1] 207:11
226:21 227:18,19,22	injury [1] 8:12	interest [2] 89:25 130:25
<b>increased</b> [2] 225:22		interested [6] 26:9 46:17
228:18	inline [1] 22:19	64:5 76:8 143:6 245:17
increases [1] 225:8	inquiries [1] 217:2	interesting [4] 89:9
incredible [3] 53:18	Inquiry [6] 144:18,24	93:21 96:24 246:17
57:22 68:19	234:9 240:21 244:19	<b>interfere</b> [1] 140:22
indicate [2] 163:1,7	246:18	internal [14] 100:17
	ins [1] 240:17	121:1 148:17 189:3
indicated [6] 3:4 72:2	inserted [1] 2:5	194:15,20,25 195:13
97:3 183:2 220:1 222:10	inside [8] 5:19 9:17 12:11	197:3,18 199:5,19,24
indicator [1] 8:24	58:25 175:23 220:10,16	205:9
individual [25] 3:21,25	221:14	internally [2] 148:23
13:25 27:1,15 28:22 50:6		201:14
51:10 71:10 106:1 107:21	insist [1] 142:5	
108:21 122:13 124:1	inspect [1] 6:7	<b>international</b> [8] 65:20
136:4,23 140:2,3 155:21	inspecting [1] 126:15	145:5 147:8,15 160:25 161:5 199:1 234:22
191:24 204:25 205:7	<b>inspection</b> [7] 8:16	
209:1 212:5,19	23:18 127:5 133:5,25	internationally [2]
individually [1] 114:17	134:22 149:4	142:4 227:2
individuals [19] 33:5	inspections [9] 126:19	intricate [2] 231:17
36:25 55:13,17 56:1 57:3	127:15,25 131:6 133:3	238:2
58:5 59:12 95:16 105:8	133:13 134:4 167:22	introduction [2] 163:13
115:12 124:18 149:16	197:19	170:20
150:4,7,16 179:14 211:12	inspector [1] 133:6	investigation [4] 31:15
1		-

#### **implementations** - lady **Offshore Helicopter Safety Inquiry** 96:5 167:15 179:22 joint [6] 35:9 208:15 209:23 217:15 220:1 investigations [1] 233:2 **investment** [1] 221:10

**JRCC** [9] 35:9 101:1,11 101:21,25 109:2,13 110:6 145:23 judge [1] 196:19 **Judy** [1] 248:13 20:21 44:12 48:12 56:7 July [4] 82:12 98:16 157:3 224:19 137:2 153:10 160:13,14 jump [1] 151:15 jumping [2] 166:24 243:9 involvement [5] 132:21 June [1] 224:18 136:19 137:13 191:23 jurisdiction [1] 109:5 jurisdictions [1] 141:7 -K-**ISO** [9] 148:2 155:19 195:14,22,24 198:9,11 keep [10] 10:12 49:21 51:5 71:6 78:16,24 97:15 157:16 175:5 177:21 keeps [2] 143:9 144:1 kept [4] 10:2 37:8 97:14 **issue** [12] 26:1,6 32:9 97:19 134:18 143:22 181:22 183:21 187:18,19 207:21 **key** [3] 89:6 116:11 118:9 **kill** [1] 178:23 issued [3] 130:16 140:15 kilometres [2] 5:10 68:22 issues [9] 13:8 35:16 kind [9] 59:6 60:24 96:23 106:18 137:13 184:10 140:11 164:18 170:22 172:8 184:15 196:1 kit [24] 11:11 22:25 23:1 it'll [6] 1:22 69:14 118:21 23:15,16 41:4 61:8 63:6 63:7,8,10,14,16,24 65:6 item [5] 1:14,15 134:21 65:19 66:6,10 67:15 68:14 71:8 73:8,11 95:15 kits [4] 3:11 38:5 66:21 items [12] 1:13 3:9,17 5:2 66:24 80:25 134:22 197:5 66:23 217:22 218:1 231:25 **knee** [1] 13:3 knew [7] 32:9 49:4,5 itself [16] 19:19 61:12 120:22 121:13 230:17,20 64:2 86:25 88:3 94:3,5 **knob** [1] 12:18 **knocking** [1] 59:7 148:25 151:19 156:14 knots [1] 92:15 168:15 215:14 236:2 knowledge [3] 37:4 55:1 218:25 knowledgeable [1] 205:6 January [2] 197:2 205:2 **known** [6] 7:16 52:2 174:6,22 187:10 192:14 knows [5] 89:1 154:15 **job** [7] 57:3,22 95:3,4 155:24 165:14,17 kudos [1] 4:9 **jobs** [3] 86:9,9 183:24 -L-John's [31] 25:13 49:10 label [1] 162:15 57:12 72:3 78:21 79:5,9 labelled [1] 112:15 79:12.18.24 81:2.12 85:5 Labrador [3] 107:4 85:10 95:7 99:19 101:23 151:6 248:6

Discoveries Unlimited Inc., Ph: (709)437-5028

Index Page 10

lacking [2] 189:22 206:5

ladder [1] 13:23

ladies [1] 1:3

lady [1] 142:15

# Multi-Page<sup>TM</sup>

#### laid - mechanism Offshore Helicopter Safety Inquiry

Offshore Helicopter Safety Inquiry				
laid [1] 116:16	length [1] 63:10	lists [1] 169:10	182:7	<b>manner</b> [3] 74:23 96:20
land [9] 25:14,20 37:22	less [3] 92:20 238:3 244:9	lit [4] 39:23 92:4 93:1	lower [1] 172:20	149:19
37:23 58:17 82:24 105:22	letters [2] 114:17 203:20	95:20	lowered [1] 124:19	manual [13] 44:5,10
131:17 132:23	letting [1] 103:10	literal [1] 51:5	lowest [1] 172:6	111:12 114:12,14,16
landed [3] 13:11,22	level [14] 34:21 101:19	literally [5] 75:13 88:9	LUNCH [1] 145:15	116:12 118:7 137:12,20
15:22	102:6 155:4 167:2 172:6	88:16 115:14 120:16	lungs [2] 8:7,10	158:2 161:23 198:22
landing [9] 11:22,25	172:20 178:12 179:8	litter [4] 61:8 63:1,2	<b>Juligs</b> [2] 0.7,10	manually [2] 15:5 95:21
15:19 16:20 19:24 20:4	181:11 182:4 197:25	66:20	-M-	manuals [8] 136:12,14
20:12,24 95:9	211:6 231:15	live [5] 42:10 114:14,16		136:20,23 137:2,4,5,7 <b>manufacturer</b> [5] 96:11
<b>lands</b> [4] 13:12 20:18 27:13,14	<b>levels</b> [11] 34:24 57:8	119:1 157:16	machine [1] 175:18	97:19 140:4 219:1,3
large [10] 46:4 68:7	149:13 152:6,23 171:14 172:15 180:10 182:2	living [2] 170:13 187:13	magazines [1] 5:18	manufacturing [1]
139:19 161:2 217:1,8	208:15 246:6	load [6] 4:15 20:16 21:10	magnitude [1] 242:19	222:6
236:5,7,10 246:5	liaise [1] 163:18	41:24 80:17 244:3	main [11] 7:23 10:21,21	March [7] 119:18 122:22
larger [3] 159:17 213:1	liaison [1] 160:25	loading [1] 95:23	11:11 13:16 37:1 46:2	123:1 124:5 213:13,24
242:11	life [31] 6:19 8:13 11:15	loads [1] 61:4	50:5 189:19 219:12 223:11	219:11
laser [2] 93:14 239:14	14:16,18,20,21,23 15:16	local [2] 115:15 196:12	maintain [2] 92:22 93:4	marine [6] 6:1,20 20:6
last [21] 65:19 76:6 89:10	36:4 39:16 63:9,11,13	located [20] 3:11 7:2,4,7	maintaining [1] 172:13	57:16 60:2 135:11
109:22 121:19 143:6	63:15 67:25,25 95:17,18	10:19,20 11:5,9,16,20 12:23 13:7 15:11,14	maintains [1] 149:25	mark [1] 93:24
146:14 168:2,17 196:13	104:12 106:4,9,12,20	12:25 13:7 13:11,14 18:25 64:9,20 184:2	<b>maintenance</b> [34] 28:13	marked [1] 11:1
196:22 202:17,22 208:7 210:10 213:12 219:22	107:12,20,24 108:3,16 108:20 109:19	220:10 222:11	29:13,13 31:23 32:8,13	markings [2] 129:14,15
225:16 233:9 234:6	lifejacket [3] 14:25 15:4	location [15] 4:20 6:17	32:14 33:19 35:16 45:4	Marshall [1] 15:8
241:19	15:7	24:19 79:12 88:13 94:17	45:19,22 46:4,6,7,11	matches [1] 5:3
late [1] 246:20	lifejackets [1] 15:3	115:5 124:17 166:18	54:18 88:6,16 97:17	material [3] 78:3 160:4
lately [1] 168:1	lifesaving [1] 6:4	219:23 233:10,15,24 234:3 244:4	147:4 164:17 189:10 190:13 195:17,20 196:4	229:9
latency [1] 242:2	lift [3] 241:6,15 242:10	locations [15] 15:12	190:13 193:17,20 190:4	matrix [9] 161:17,21
lateral [1] 93:19	light [18] 6:25 31:1,5,7,8	64:19 80:1,24 81:10,12	216:23 237:21,22 238:1	166:5 169:15 171:7,11
latest [3] 168:21 221:16	31:13,15,22 32:9 33:19	81:23 84:3 85:5,15 86:6	major [2] 155:2 206:21	171:17 173:7 176:18
241:10	33:21 34:3 63:20 66:14	86:15 128:4 131:7 232:9	majority [2] 53:1 55:14	<b>matter</b> [12] 39:14 46:2 143:8 149:22 173:11
latex [1] 138:22	88:17 135:24 186:21	locator [2] 6:24 11:4	makes [3] 6:11 141:9	143.8149.22173.11
latitude [1] 36:3	239:10	lock [2] 12:15,16	145:22	243:25 244:13 245:7
launch [1] 51:8	lighters [1] 5:4	logged [2] 22:15 179:17	<b>man</b> [1] 122:5	mature [2] 235:2,8
1	1000000000000000000000000000000000000			
<b>launched</b> [3] 108:7	<b>lighting</b> [13] 93:4 130:10	logistics [10] 27:3,11	manage [9] 19:24 20:19	<b>max</b> [1] 244:10
<b>launched</b> [3] 108:7 121:23,24	133:22,24 134:1,2 135:4	<b>logistics</b> [10] 27:3,11 29:18 33:5 51:23 103:5	<b>manage</b> [9] 19:24 20:19 73:16 77:23 80:11 107:16	<b>max</b> [1] 244:10 <b>maximum</b> [2] 42:10
	133:22,24 134:1,2 135:4 135:10,20 239:8,11,15	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4	73:16 77:23 80:11 107:16 136:14 168:19 170:6	<b>max</b> [1] 244:10 <b>maximum</b> [2] 42:10 244:3
121:23,24	133:22,24 134:1,2 135:4 135:10,20 239:8,11,15 239:15	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24	maximum [2] 42:10
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11	133:22,24 134:1,2 135:4 135:10,20 239:8,11,15 239:15 <b>lightly</b> [1] 9:15	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19
121:23,24 <b>law</b> [1] 141:18	133:22,24 134:1,2 135:4 135:10,20 239:8,11,15 239:15	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8	133:22,24       134:1,2       135:4         135:10,20       239:8,11,15       239:15         lightly [1]       9:15       132:14,18,19       134:5,16         135:15,24,25       136:2       239:11       134:5,16         likely [4]       32:20       64:2,3       97:4	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 <b>management's</b> [1]	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learn</b> [2] 160:21,21	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learn</b> [2] 160:21,21 <b>learned</b> [2] 210:2 218:5	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21 133:15 135:22 152:17,18 154:1 168:12 186:11 201:10 204:1,12 206:21
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learn</b> [2] 160:21,21 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [2] 76:5 89:9	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21 133:15 135:22 152:17,18 154:1 168:12 186:11 201:10 204:1,12 206:21 212:3,14 216:4,5 223:21
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [2] 76:5 89:9 <b>learnings</b> [1] 119:2	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8	73:16 77:23 80:11 107:16 136:14 168:19 170:6 <b>managed</b> [1] 172:24 <b>management</b> [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 <b>management's</b> [1] 155:12 <b>manager</b> [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21 133:15 135:22 152:17,18 154:1 168:12 186:11 201:10 204:1,12 206:21 212:3,14 216:4,5 223:21 236:17
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learnd</b> [2] 160:21,21 <b>learned</b> [2] 10:2 218:5 <b>learning</b> [1] 119:2 <b>least</b> [4] 30:4 162:8	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22	maximum [2] 42:10         244:3         may [41] 5:8 6:21 7:16         10:14,16 30:24 35:15,19         37:20 40:22 42:1,13         51:15,16,17 54:9 59:2         65:7 76:8 78:15 108:18         110:7 115:5 123:22         127:21,22,23 153:23         157:22 162:14 168:14         172:21 173:10 174:2         186:17 191:8 193:5,8         204:15,24 206:15         mean [40] 29:23 30:14         32:25 33:25 44:25 46:7         53:8 55:22 59:15,16 70:5         72:4,7 73:14 87:12 91:11         97:10 100:1 101:21         102:10 118:13 132:17,21         133:15 135:22 152:17,18         154:1 168:12 186:11         201:10 204:1,12 206:21         212:3,14 216:4,5 223:21         236:17         means [6] 35:22 60:4
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [2] 76:5 89:9 <b>learnings</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managers [7] 44:15 151:25 166:15 179:8	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21 133:15 135:22 152:17,18 154:1 168:12 186:11 201:10 204:1,12 206:21 212:3,14 216:4,5 223:21 236:17 <b>means</b> [6] 35:22 60:4 77:3 78:8 88:6 248:7
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders</b> [1] 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [2] 76:5 89:9 <b>learnings</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15 184:24 240:24	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20         194:24 196:24 202:20	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8 193:23	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managers [7] 44:15 151:25 166:15 179:8 193:21,25 198:4	<b>maximum</b> [2] 42:10 244:3 <b>may</b> [41] 5:8 6:21 7:16 10:14,16 30:24 35:15,19 37:20 40:22 42:1,13 51:15,16,17 54:9 59:2 65:7 76:8 78:15 108:18 110:7 115:5 123:22 127:21,22,23 153:23 157:22 162:14 168:14 172:21 173:10 174:2 186:17 191:8 193:5,8 204:15,24 206:15 <b>mean</b> [40] 29:23 30:14 32:25 33:25 44:25 46:7 53:8 55:22 59:15,16 70:5 72:4,7 73:14 87:12 91:11 97:10 100:1 101:21 102:10 118:13 132:17,21 133:15 135:22 152:17,18 154:1 168:12 186:11 201:10 204:1,12 206:21 212:3,14 216:4,5 223:21 236:17 <b>means</b> [6] 35:22 60:4 77:3 78:8 88:6 248:7 <b>measure</b> [2] 170:7 225:9
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 243:6 <b>learn [2]</b> 160:21,21 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [2] 76:5 89:9 <b>learning</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15 184:24 240:24 <b>leaving</b> [1] 125:19	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20         194:24 196:24 202:20         208:21,25 211:15,21	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8 193:23 <b>lots</b> [1] 214:6	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managers [7] 44:15 151:25 166:15 179:8 193:21,25 198:4 managing [2] 131:10	maximum [2] 42:10         244:3         may [41] 5:8 6:21 7:16         10:14,16 30:24 35:15,19         37:20 40:22 42:1,13         51:15,16,17 54:9 59:2         65:7 76:8 78:15 108:18         110:7 115:5 123:22         127:21,22,23 153:23         157:22 162:14 168:14         172:21 173:10 174:2         186:17 191:8 193:5,8         204:15,24 206:15         mean [40] 29:23 30:14         32:25 33:25 44:25 46:7         53:8 55:22 59:15,16 70:5         72:4,7 73:14 87:12 91:11         97:10 100:1 101:21         102:10 118:13 132:17,21         133:15 135:22 152:17,18         154:1 168:12 186:11         201:10 204:1,12 206:21         21:2:3,14 216:4,5 223:21         236:17         means [6] 35:22 60:4         77:3 78:8 88:6 248:7         measured [1] 140:1
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learn [2]</b> 160:21,21 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15 184:24 240:24 <b>leaving</b> [1] 125:19 <b>led</b> [2] 235:5,6	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20         194:24 196:24 202:20         208:21,25 211:15,21 <b>listed</b> [7] 1:15 60:15	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8 193:23	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managers [7] 44:15 151:25 166:15 179:8 193:21,25 198:4 managing [2] 131:10 146:24	maximum [2] 42:10         244:3         may [41] 5:8 6:21 7:16         10:14,16 30:24 35:15,19         37:20 40:22 42:1,13         51:15,16,17 54:9 59:2         65:7 76:8 78:15 108:18         110:7 115:5 123:22         127:21,22,23 153:23         157:22 162:14 168:14         172:21 173:10 174:2         186:17 191:8 193:5,8         204:15,24 206:15         mean [40] 29:23 30:14         32:25 33:25 44:25 46:7         53:8 55:22 59:15,16 70:5         72:4,7 73:14 87:12 91:11         97:10 100:1 101:21         102:10 118:13 132:17,21         133:15 135:22 152:17,18         154:1 168:12 186:11         201:10 204:1,12 206:21         21:2:3,14 216:4,5 223:21         236:17         means [6] 35:22 60:4         77:3 78:8 88:6 248:7         measure [2] 170:7 225:9         measured [1] 140:1         measurement [1] 170:8
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 243:6 <b>learn</b> [2] 160:21,21 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15 184:24 240:24 <b>leaving</b> [1] 125:19 <b>led</b> [2] 235:5,6 <b>left</b> [7] 7:2 9:9 125:18	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lightly</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20         194:24 196:24 202:20         208:21,25 211:15,21	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8 193:23 <b>lots</b> [1] 214:6 <b>Louisiana</b> [7] 79:15,17	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managing [2] 131:10 146:24 mandate [2] 214:8	maximum [2] 42:10         244:3         may [41] 5:8 6:21 7:16         10:14,16 30:24 35:15,19         37:20 40:22 42:1,13         51:15,16,17 54:9 59:2         65:7 76:8 78:15 108:18         110:7 115:5 123:22         127:21,22,23 153:23         157:22 162:14 168:14         172:21 173:10 174:2         186:17 191:8 193:5,8         204:15,24 206:15         mean [40] 29:23 30:14         32:25 33:25 44:25 46:7         53:8 55:22 59:15,16 70:5         72:4,7 73:14 87:12 91:11         97:10 100:1 101:21         102:10 118:13 132:17,21         133:15 135:22 152:17,18         154:1 168:12 186:11         201:10 204:1,12 206:21         21:2:3,14 216:4,5 223:21         236:17         measure [2] 170:7 225:9         measured [1] 140:1         measurement [1] 170:8         mechanical [2] 25:25
121:23,24 <b>law</b> [1] 141:18 <b>laws</b> [1] 211:11 <b>layer</b> [5] 68:19 143:20 143:21,22 144:9 <b>layers</b> [1] 66:12 <b>lead</b> [6] 38:15 52:4 59:25 151:14 157:18 166:17 <b>leaders [1]</b> 100:8 <b>leadership</b> [1] 56:7 <b>leading</b> [1] 170:9 <b>leads</b> [1] 163:11 <b>leaking</b> [1] 67:21 <b>lean</b> [1] 53:13 <b>leap</b> [1] 243:6 <b>learn [2]</b> 160:21,21 <b>learned</b> [2] 210:2 218:5 <b>learning</b> [1] 119:2 <b>least</b> [4] 30:4 162:8 202:16 230:2 <b>leave</b> [8] 3:23 11:13 17:3 19:16 38:16 172:15 184:24 240:24 <b>leaving</b> [1] 125:19 <b>led</b> [2] 235:5,6	133:22,24 134:1,2 135:4         135:10,20 239:8,11,15         239:15 <b>lighty</b> [1] 9:15 <b>lights</b> [12] 39:12 82:15         132:14,18,19 134:5,16         135:15,24,25 136:2         239:11 <b>likely</b> [4] 32:20 64:2,3         97:4 <b>limit</b> [3] 103:22 141:24         175:21 <b>limitation</b> [2] 5:11 92:10 <b>limited</b> [1] 39:22 <b>limits</b> [2] 76:19 241:17 <b>linage</b> [1] 63:8 <b>line</b> [13] 7:2 15:13 50:13         57:5 70:15 103:3 157:14         158:15 159:8 188:8         201:25 227:14 236:23 <b>lined</b> [1] 219:3 <b>lips</b> [1] 9:13 <b>list</b> [19] 1:13,14 44:25         57:7 62:9,13,21 64:2,5         113:18 115:7 117:20         194:24 196:24 202:20         208:21,25 211:15,21 <b>listed</b> [7] 1:15 60:15         66:25 78:5 164:2 170:19	29:18 33:5 51:23 103:5 133:9,11 193:25 194:4 <b>longer</b> [3] 2:18 201:6 202:20 <b>look</b> [30] 21:4 22:2,20 23:14,15 58:19 64:6 128:7 131:2 148:22 155:8 163:11 164:1 177:11,12 181:10 184:20 185:19 187:17 190:23 207:3,6 207:13 208:13 209:18 219:11 223:12 234:15 244:21 245:6 <b>looked</b> [3] 218:9 229:21 242:7 <b>looking</b> [20] 25:10 53:25 55:21 56:2,19 66:5 67:14 68:5 72:1 94:11 129:12 174:3 212:12 229:14 234:8,9,13 239:7,20 244:18 <b>looks</b> [3] 43:10,23 141:9 <b>loop</b> [1] 131:8 <b>lose</b> [2] 170:23 183:21 <b>lost</b> [4] 121:14,18 184:8 193:23 <b>lots</b> [1] 214:6 <b>Louisiana</b> [7] 79:15,17 79:19,24 81:15 82:23	73:16 77:23 80:11 107:16 136:14 168:19 170:6 managed [1] 172:24 management [51] 39:10 117:8 137:25 138:2 145:18 146:13,17,22,25 147:13,16,22,24 151:13 153:16 154:11 155:13,15 156:9,13,22 157:20 163:18 164:1,23 165:23 166:3,13 167:25 168:12 170:3,3 171:21,23 177:15 187:23 190:24 191:1,1,5 195:2 198:1,4,9,11 199:16 210:11,14,23 223:7 243:8 management's [1] 155:12 manager [14] 28:1 103:17 115:6 116:6 169:22 182:16 194:4 197:1,25 199:12,21 200:21 205:22 233:22 manager's [1] 136:24 managers [7] 44:15 151:25 166:15 179:8 193:21,25 198:4 managing [2] 131:10 146:24	maximum [2] 42:10         244:3         may [41] 5:8 6:21 7:16         10:14,16 30:24 35:15,19         37:20 40:22 42:1,13         51:15,16,17 54:9 59:2         65:7 76:8 78:15 108:18         110:7 115:5 123:22         127:21,22,23 153:23         157:22 162:14 168:14         172:21 173:10 174:2         186:17 191:8 193:5,8         204:15,24 206:15         mean [40] 29:23 30:14         32:25 33:25 44:25 46:7         53:8 55:22 59:15,16 70:5         72:4,7 73:14 87:12 91:11         97:10 100:1 101:21         102:10 118:13 132:17,21         133:15 135:22 152:17,18         154:1 168:12 186:11         201:10 204:1,12 206:21         21:2:3,14 216:4,5 223:21         236:17         means [6] 35:22 60:4         77:3 78:8 88:6 248:7         measure [2] 170:7 225:9         measured [1] 140:1         measurement [1] 170:8

Discoveries Unlimited Inc., Ph: (709)437-5028

#### Multi-Page<sup>TM</sup>

#### 169:23 171:1 173:2.17 **minimize** [1] 14:5 176:20 235:1,12,12 236:4 221:1 223:9 230:24 **medevac** [15] 34:15,22 35:2 46:18,25 48:11 50:1 175:1 176:16 178:5 180:6 233:11 236:8 242:2 244:14 245:21,22,22 **minimum** [7] 10:3 37:14 99:23,25 100:1,21 104:7 180:24 181:3,8,14 182:19 37:16 92:12,13,15,18 mostly [2] 35:1 70:15 needed [8] 7:3,23 15:10 104:18 105:21 106:8 182:23 183:8,17 185:7 179:4 184:1 189:24 motor [1] 242:21 minor [1] 231:20 185:13,25 186:7 187:14 medevacs [1] 126:8 205:14 211:7 minute [6] 67:18 75:24 mounted [2] 11:15 188:16,22 189:9,16 190:1 medical [30] 39:8,9 48:3 needs [13] 6:3 63:3 84:20 86:14 87:8,11 88:21 220:11190:6,11,17 191:21 192:3 48:13,18,21,23,25 49:5 99:24 107:21 124:2 138:4 mouth [6] 9:2,13,15 10:8 minutes [29] 2:16,17,22 192:22 193:4,12,17 194:2 49:11,12,25 51:19 52:9 148:16 172:16 197:14 3:5,13 4:25 21:19 28:14 10:12 14:10 194:8,13 195:6 196:23 52:16 54:7,7 59:2 60:1 237:25,25 242:7 42:10 45:18 47:24 67:6 197:16 198:7 199:10,18 **mouthpiece** [6] 9:14,17 65:8 66:23 99:17 100:7 **netting** [3] 16:2,2,18 75:7,15,16 76:12 84:6,7 200:4,9,13,24 201:8 9:19.21 10:1.12 100:13,15 107:21 123:12 84:12,15,19,20,21 85:16 202:10 203:1,6,12,17 **never** [3] 135:15 192:13 123:13 193:24 211:17 move [25] 31:20 32:4 85:22 88:22 122:5.18 204:5,9,17,23 205:8,13 213:10 94:15 117:12 138:2 medications [1] 5:14 167:6 206:13,19 207:19,25 new [30] 38:11 65:18 145:17,19 151:19 161:20 medium [3] 182:7,9 208:20 209:4,9 210:3,9 miss [2] 180:7 181:16 127:19 144:18,19,22 162:7 163:2,16 169:21 236:10 212:13,21,25 213:5,11 149:2,6 150:21 152:4 **misses** [1] 180:10 171:5.13.16 176:23 201:9 214:9,20 215:2,9 216:3 meet [7] 6:2 23:5 32:19 153:6,10 157:8 166:14 207:4 208:19 210:22 missing [3] 116:13,14 216:9,18 217:12,20 75:24 135:10 148:15 166:16 167:8 168:3,22 222:25 227:9 233:12 118:19 218:21 219:21 220:7,14 205:24 168:24 172:3 175:13,13 239:17 mission [25] 41:3 43:13 221:19 222:1,9,15,20,24 204:13 221:18 232:12 meeting [5] 6:19 102:12 moved [4] 19:7 218:15 43:15 44:21 50:11 51:13 224:10,25 225:12 226:1 241:21,21 242:7,24 243:2 102:13 103:13 120:17 233:14 234:3 58:21,22 63:25 65:23,23 227:21 228:1,7,11 229:18 newer [2] 150:17 156:25 meetings [12] 103:1 66:1 72:18 89:4 94:19 movement [1] 19:25 229:25 230:6 231:2,8,22 Newfoundland [6] 133:11 157:17 165:4,5,5 233:8 234:5 235:14,22 99:22 101:5 106:17 109:4 moving [6] 40:14 178:25 166:9 196:17 206:17 106:24 107:3 131:19 109:14.14 121:21 123:21 237:2.11.17 240:9 227:5 229:15 230:17 214:5 215:11,17 151:5 246:4 248:6 145:24 173:8 239:22 multi-bed [1] 66:11 mega-door [1] 75:2 news [1] 66:2 **missions** [11] 45:12 Ms [349] 1:4.5.19.24 2:6 multiple [1] 123:22 member [1] 185:12 55:24 56:2,3 66:17 95:14 newspaper [1] 4:5 2:11,12 3:4 4:10,12 17:7 must [31] 3:7,9 4:1 5:14 96:13 99:17,22 100:5,16 members [3] 117:22 17:18 18:7,13 19:4,14 Newspapers [1] 5:16 5:16,19,21 10:6 11:7 127:2 216:16 mistakes [1] 186:16 21:3,8,21 22:1 23:23 12:20 13:25 36:11 55:12 next [31] 9:7 26:15 28:15 24:8,16 25:2,7 30:12 mitigate [2] 77:13 179:4 60:21,25 61:14 91:8 92:4 memory [2] 84:5 133:23 34:9,15 61:21 64:13 31:6,12,24 32:6,18,23 98:5 138:25 141:19 128:10,19 134:12 135:2 memos [1] 232:23 mitigated [5] 166:11 33:12,17 34:4,8 38:13 147:21 164:13,15 186:23 137:25 142:14 145:19 168:10 169:7 172:16 mention [2] 153:10 40:8 41:5,10,14,18,25 151:12 153:23 159:6,8 195:17 198:21,24 212:17 181:23 176:25 42:19.24 43:3.14.18 44:7 221:22 239:25 161:16 171:12,13 174:18 **mitigating** [1] 179:24 mentioned [13] 27:1 45:2,8,17,24 46:15,21 178:4 180:1 182:4 183:7 mitigation [3] 95:24 33:5 42:1 52:8 53:12 47:3,8,17,22 48:5,19,24 194:14 197:12 211:6 -N-74:10 122:20 124:13 174:22 176:13 49:3,8,15,23 50:12,18 225:13 231:24 133:11 137:16 173:8 50:25 51:14 52:7,19 53:9 mix [4] 24:13,14 83:17 name [6] 81:10 150:5 **nice** [7] 22:20 52:13 55:4 186:8 198:8 53:23 54:8.16 55:6 59:13 83:20 211:20,23 212:3,8 57:19 96:24 131:8 157:6 60:6 61:11,20 62:1,6 mesh [1] 144:1 Mobil [2] 202:13 203:19 named [1] 83:3 **night** [17] 39:12,13,22 64:1,12,17 69:21 70:2 message [2] 18:3,16 mode [1] 120:5 national [1] 35:11 42:4,9,13 46:3 58:18 71:21,24 72:23 73:9,23 met [4] 101:22 135:16 63:20,23 66:23 70:24 **moderate** [1] 171:14 74:9 78:19,25 79:10,16 nature [4] 29:2 39:6 40:1 169:20 215:20 85:3 92:4 93:2 105:24 79:22 80:2,20 81:5,9,17 62:22 modes [2] 93:23,24 225:18 Mexico [9] 67:3 68:11 81:22 82:2,18,22 83:2,6 nautical [7] 68:25 69:3 modification [1] 225:1 68:13 74:18 81:15 84:7 83:10,16,21 84:1,9,17 **nighttime** [2] 38:2,7 69:24,24 70:1 241:21 modifications [1] 86:16 200:18 201:21 85:8,14,20 86:2,19,23 nine [1] 244:2 242:6 233:25 87:9,16 89:11,17 90:10 mid [1] 236:22 Nautilus [3] 5:24,24 NL [1] 248:9 **moisture** [2] 144:2,5 90:20,25 91:6,23 96:1 **middle** [2] 18:1 80:10 6:16 **NLOPB** [1] 3:17 97:2,9 98:10,17,22 99:4 monitor [2] 95:3,9 midnight [1] 32:10 near [5] 180:7,10 181:16 99:9.15 100:19.25 101:4 nobody [2] 165:18 199:8 **monitored** [1] 172:24 234:24 241:16 might [13] 40:7 86:13 101:9,14,18 102:8 103:19 non [3] 145:21 207:20,23 **monitoring** [9] 22:13 95:17 104:11 108:15 104:3,16,24 105:9,15 nearest [3] 13:7,24 16:3 non-bias [1] 211:25 79:18 95:5 97:6 123:4 132:19 138:13 139:20 106:22 107:2,7,17 108:6 necessarily [10] 41:20 non-conformance [2] 165:15 172:13,22 211:3 140:6 181:9 186:10 193:7 108:11,23 109:8,21 137:13 149:10 154:20 207:20,21 110:11,23 111:13,18,25 month [12] 37:9 58:14 232:8 155:1.11 160:1 188:7 59:9,11 197:6,10,12 112:8,18,22 113:4,8,12 non-conformances [1] **mightn't** [1] 171:9 207:8 242:15 212:1,11,14,19 213:2 114:1,9,15,21 116:15,19 207:1 miles [10] 68:25 69:3.24 necessary [7] 11:23 116:23 117:2 118:2,12 month-to-month [1] **non-oil** [1] 104:7 69:24 70:1,12,18,18 14:23 44:6 139:1 141:14 119:11,17 121:25 122:19 149:10 **non-prescription**<sup>[1]</sup> 241:21 242:6 151:16 202:14 123:2,8 124:4 125:2,25 monthly [3] 60:2 167:7 5:13 military [9] 35:13 36:20 neck [4] 7:8 15:14 138:20 128:9,14,20 129:1,5,17 211:16 53:14,14,16 55:15 56:16 138:23 **non-punitive** [4] 149:25 130:1,5 131:13,22 132:4 63:8 243:1 months [2] 208:8 228:22 186:8,12,14 need [36] 20:13,25 24:13 132:9,13 133:14 134:8 **mimic** [1] 37:19 morning [6] 1:3,6 134:15 135:9,14,19 136:9 26:22 27:24 28:7 46:25 Norie [1] 152:8 107:25 142:15 209:15 136:25 137:22 138:9 52:10 92:21 100:1,9,15 normal [6] 49:24 122:23 mind [6] 59:4 67:7 143:5 246:24 145:16 146:11 151:11 100:21,22 101:6 105:8 150:18 151:1 218:20 122:23 142:7 172:25 152:14 153:21 154:5 107:14 147:15 158:6 Moss [1] 248:13 218:8 minds [1] 154:25 156:4 158:4,11,20 160:8 161:22 163:14 174:18,24 most [19] 4:3 27:5 28:4 normally [9] 8:3,11 mingle [1] 227:13 161:10 162:1.5.18.24 176:6 189:23 191:18,19 36:20 40:20 51:21 65:9 11:18 14:15 72:12 153:20 minimal [1] 60:17 163:6 164:6 168:11 207:8 209:21 220:21 203:10,24 207:15 67:18 130:10 152:12

Discoveries Unlimited Inc., Ph: (709)437-5028

Index Page 12

#### medevac - normally Offshore Helicopter Safety Inquiry

## $\boldsymbol{Multi-Page}^{^{\mathrm{TM}}}$

### north - own Offshore Helicopter Safety Inquiry

, ,		0	<b>Offshore Helic</b>	copter Safety Inquiry
north [18] 67:3 68:15	230:1 236:7 237:4,7	21:17,20 22:10,12 31:20	241:3 246:16	226:10,21 227:23 228:6
74:19 75:6 82:6 90:15	numbered [1] 112:2	32:4 33:9 48:4,23,25	one's [1] 170:19	228:22 229:5,15 230:11
143:8 175:16 200:18	numbers [10] 44:11	49:14,16 50:6 51:11 82:5	one-day [1] 142:12	234:23,24
220:23 224:7,8 235:3 236:11 244:14,17,20	115:8 117:15,19,21	100:7 126:16,21 130:14 130:19,25 131:18 137:11	one-stop [1] 155:22	operators' [2] 136:13
245:14	169:17 172:8 173:19	141:8 142:14,22 143:3	onerous [1] 221:7	225:20
Norway [3] 91:18 127:8	175:10 227:18	145:4 146:10 161:3	ones [4] 60:18 130:10	opinion [1] 246:3
235:5	numerous [1] 218:4	211:17 214:3 216:16	144:1 180:15	<b>opportunities</b> [5] 207:1 207:6,16 226:11 242:23
Norwegian [1] 235:3	<b>nurse</b> [5] 48:14 49:25 50:15 51:1 52:11	232:20 233:2 234:22	ongoing [9] 19:1,12 37:9	, ,
<b>nose</b> [4] 6:23 9:6,7 141:2	50:15 51:1 52:11	235:2 237:1 238:15 239:7 239:10 245:13,24 246:4	123:21 148:17 152:4	<b>opportunity</b> [7] 54:21 135:7 149:12 152:4 182:6
note [3] 15:12 60:7	-0-	often [7] 26:2 50:4 51:21	166:7 167:16 237:21	184:8 217:7
161:17		59:15 102:2 109:16 203:7	onshore [1] 214:4	opposite [1] 10:20
noted [4] 17:25 18:8	o'clock [2] 47:9,11	OHS [4] 189:3,6 190:21	onto [3] 27:20 29:14 71:1	<b>ops</b> [5] 195:19 196:6
19:15 171:4	objectives [1] 163:25	191:3	<b>Op</b> [1] 195:12	200:21 205:23 233:22
notes [1] 131:14	objects [1] 6:11	<b>oil</b> [52] 35:24 62:16 81:20	open [6] 13:16 20:15 75:1	option [1] 150:5
nothing [3] 121:15 156:2	obligated [1] 193:22	82:3,5 103:5 104:10,19	87:7 123:21 215:22	oral [1] 15:6
178:22	obligation [1] 97:24	105:5 106:3,5,9 107:10	<b>opening</b> [3] 75:19 87:5 224:20	orchestrated [1] 52:14
<b>notice</b> [4] 43:10 114:24 173:22 232:15	obligations [1] 51:6	107:15 126:14 128:2 133:10,15,18 136:10,12	openly [1] 216:2	order [8] 51:1,18 72:5
	<b>observation</b> [4] 184:21	137:8 140:21 145:22		105:25 141:10 224:6,9
<b>notification</b> [12] 25:10 28:20,24,25 29:11,25	184:25 241:3 242:4	146:2,7 161:3 173:21	opens [1] 150:6	224:12
30:5 32:15,17,25 44:18	Observations [1]	176:20 183:1 184:14	<b>operate</b> [6] 7:17 14:7 24:22 49:18 86:5 234:12	ordered [3] 140:2 224:13
115:1	184:12	191:25 192:6,8,11,19,24 193:1,13 194:10 202:15	operates [2] 7:18 105:19	224:17
notifications [1] 179:18	observe [1] 149:24	203:18 216:5,16 217:13	operating [10] 52:1	orders [1] 242:19
notified [8] 44:17,23,24	observer [2] 68:4 123:4	224:11 225:20 226:10	77:25 80:5 84:15 98:16	organization [15] 24:24
44:25 118:22,23 120:15	obstructions [1] 129:12	227:23 234:23 239:13	99:13 164:3,7,24 236:4	91:2 127:2 129:21 152:22 153:2 155:4,12,16 156:2
121:18	obvious [2] 65:22 132:19	245:18	operation [26] 19:9	160:18 189:8 199:1
notify [5] 26:19 36:5	<b>obviously</b> [5] 63:19 76:8	<b>old</b> [1] 55:16	29:23 72:13,15 79:13	211:15 216:22
44:13,15 193:25	95:22 138:16 220:19	onboard [3] 58:11 93:10	82:17 98:20,23,25 115:10	organizations [1]
<b>Notifying</b> [1] 115:6	OCC [1] 42:21	93:14	140:23 151:9 152:3 154:23 165:13 166:16,18	160:11
Nova [2] 132:5 246:8	occasion [1] 104:9	<b>once</b> [33] 6:7,8 7:5 8:22 10:4,8 12:11 15:21 17:1	168:23 174:4,23 175:13	organize [1] 51:15
November [1] 158:19	occasions [2] 35:14 104:17	23:11,18 26:13,24 30:18	175:14 176:15 197:11	orientated [1] 157:13
<b>NOW</b> [109] 2:13 9:12 17:25	occupation [1] 189:18	33:15 38:8 51:23 52:1	198:17 204:14	oriented [2] 221:13
18:15 19:10 25:8 30:20 32:12 34:9,21 38:14 39:3	occupational [6] 187:20	54:10 75:17 88:16 93:6	operational [3] 37:4	236:23
42:1,16,18 47:11 63:7	188:1 189:12,20 190:8	120:11 124:16,21 150:15	55:4 57:24	orifice [1] 10:1
64:2 65:18,21 66:5 68:17	191:23	174:15 179:17 203:10 208:9 212:1 229:13	operationally [1]	<b>OSH</b> [1] 141:3
70:13 71:4,20 72:2 74:10	occur [5] 15:17 32:20	236:17	221:13	ought [1] 244:21
82:23 85:21 87:13 91:2 95:4 99:16 104:4 109:22	35:23 138:15 198:22	one [132] 1:7,12 3:20 4:24	<b>operations</b> [52] 18:22 27:4,15 28:1 29:22 35:8	ours [3] 37:6 130:15
111:14 112:1 114:20	occurred [2] 139:17	8:2 9:9 10:19 11:9,20	35:12,18 36:10 38:8	244:15
115:8 119:18 122:23	217:16	12:9,17 16:6,15 18:20	44:16 63:23 72:12 90:1	<b>ourselves</b> [5] 68:15 170:10 198:18 201:14
123:1,12 126:1,16 129:18	occurrences [1] 105:20	22:2,24 26:14 39:2,4 40:6,15 42:8,8 44:18	103:16 115:6 119:25	212:10
132:14 136:12 138:16 145:14 146:12 151:12	occurring [1] 149:18	47:4,4 52:1,4 61:10	136:12,24 137:10,12,20 142:8 146:19,24 147:3	outlined [1] 65:3
152:15 157:2,13,21	occurs [4] 13:2 35:20	76:24 78:2,7 82:15 86:25	148:5 149:2,3 151:5	outs [1] 240:17
158:12,16 159:10 161:11	58:20 169:22	104:7 105:2 110:25 112:6	152:2,11 164:5,16,16	outside [10] 9:14 35:23
162:2 164:5,22 165:14	Ocean [1] 56:22	113:15 115:7,11 117:1 118:5 122:5,10 124:11	166:7,7,14 167:14 169:3	61:4 66:22 68:3 86:6
168:5 169:3 171:5 173:6	<b>off</b> [23] 15:24 17:3 20:18 20:20 25:24 31:9 41:17	124:12,13,15 125:19	188:6 195:12 200:3,20	175:23 211:25 220:16
174:6,11 179:5,7 184:7 190:5 191:12,14 195:17	41:19 42:12 46:8 59:7	127:25 129:4,6,13 136:19	201:20,22 208:14,18 211:19 216:22 233:23	221:11
201:9 205:20 208:4	85:10 96:21 116:5 131:25	141:19 143:7 145:18	237:24	overall [1] 144:25
209:17 210:7,20 211:16	146:3 150:16 163:12	146:7 150:1 153:2,3	operator [16] 3:17 36:1	overalls [1] 6:13
218:8,11 219:1,23 222:25	168:7 169:21 191:14	154:1 156:23,24 165:3 166:2 168:21 171:20	39:5 104:7 111:11 113:17	overburden [1] 191:5
223:8 224:2,19,23 226:22 227:5,20 228:18,21 229:3	243:1,24	173:5 175:10,18 176:1,3	123:14 124:14 133:5,18	overdue [4] 114:24 115:3
229:20 233:14 234:3	<b>offer</b> [6] 20:4 62:20 78:22 80:23 81:11,14	177:23 178:10 179:6	145:9,22 162:19 220:21 227:8 245:18	116:12 117:4
236:15 237:20 240:17,23	offered [2] 20:6,10	180:14,15 181:17,18,25	operator's [2] 107:11	<b>Overdue/missing</b> <sup>[1]</sup> 111:24
242:11 244:11 246:25	office [9] 26:19,20 79:12	183:1 187:9 188:13 189:1 189:5 190:2,5 191:1,2	217:13	overhead [1] 122:7
nowhere [1] 80:10	79:18 136:23,24 147:4	193:3,23 195:12 196:11	operators [41] 27:2,11	oversee [1] 191:14
nuance [1] 48:2	162:17 240:18	197:2,2,10 199:25 202:11	28:2,22 36:6 49:14 91:3	oversight [12] 147:17
number [28] 8:2 36:9	officer [5] 20:4 102:20	202:17 203:5 204:20,22	104:11,19 108:4,13	148:4 149:14 170:13
40:14 66:8,9 70:23 71:6	103:13 142:20,21	204:25 205:25 207:5	126:14 133:16 136:10	191:15 196:16,21 199:7
72:25 76:24 112:4 115:15 115:22 136:19 159:14	officers [1] 20:12	208:18 209:16 210:4,6 210:13,20 212:5,8,18	142:1 144:17 147:21 158:22,23 159:14,23	200:23 208:17 232:20
165:6 172:1 174:11,14	offload [1] 21:9	219:22 220:5,5,6,8 226:8	176:20 183:2 192:24	245:6
174:16 175:8 201:18	offshore [51] 3:24 4:19	228:15,15 231:15,25	193:1 194:10 202:15	<b>OWN</b> [31] 5:9 35:4,16
208:24 212:19 225:14	5:6 8:18 16:17 20:17,21	237:15,18 239:18,18	203:18 216:5 224:5,11	56:12 86:20 110:7,8
1	1	1	1	1

Discoveries Unlimited Inc., Ph: (709)437-5028

## Multi-Page<sup>TM</sup>

#### owner - preparations Offshore Helicopter Safety Inquiry

			Offshore Heli	copter Safety Inquiry
114:12,16 121:1 139:18	33:11 51:18 73:1 111:14	167:10	21:22 27:16 29:8 30:15	<b>pole</b> [1] 50:10
143:24 147:13 154:25	143:24 174:3 175:24	performed [1] 126:20	36:14 45:11,11 50:19	policies [2] 5:1 154:18
157:24 167:14 168:7	181:11 185:20 217:14	performs [1] 148:17	54:17 88:7 139:17 169:9	policy [2] 5:12 167:24
170:4 183:3 189:2,18	231:24	perhaps [10] 52:21 64:18	189:10 190:13 210:21 216:10 227:16	<b>pool</b> [3] 40:3 188:8 206:3
192:12 195:8 196:6,8 198:15 216:17 217:5	parties [3] 2:2 111:20	71:20 112:2 163:1 171:5		<b>poor</b> [1] 93:1
220:19 222:7 245:10	194:17	204:24 237:6 244:21	<b>pilots'</b> [1] 138:16	poorly [1] 93:1
owner [1] 136:4	partnered [1] 155:3	245:21	<b>pitot</b> [1] 12:7	<b>pop</b> [1] 72:7
owners [1] 137:7	<b>party</b> [10] 48:3 84:15 145:21 146:8 149:6 164:7	period [6] 30:11 197:15	<b>place</b> [48] 9:7,12,25 12:16 13:2 14:10 26:15	portion [3] 32:14 68:7
······································	164:8,19 170:11 205:4	208:10,10 215:18 224:4	37:18 55:25 56:23 60:16	151:12
-P-	pass [1] 23:19	permanently [1] 73:12	79:4 81:15 84:18,20,21	portions [1] 62:10
<b>p.m</b> [3] 47:9,10 105:24	passed [3] 17:22 38:8	permit [1] 99:14	98:12 102:21 104:1,19	<b>position</b> [9] 13:9,10 14:8
	183:10	<b>permitted</b> [4] 5:6,15	104:20,21 119:21 147:22	51:7 63:3 94:4 97:15
<b>Pacific</b> [1] 56:24	passenger [12] 5:19	12:10 16:16	147:23 148:23 154:14 155:9 156:19,21 169:20	109:17 121:19
package [3] 17:23 157:6 160:5	10:22 11:10,12 17:10,16	<b>person</b> [15] 8:1,1 12:10 16:16 48:9 50:9 87:24	170:23 174:23 175:17,22	<b>positioning</b> [1] 115:18
packaged [1] 3:20	23:25 40:4,13 142:7	123:9,11,19 124:3,7,20	176:7,14 184:17 207:14	<b>positions</b> [4] 191:23
page [12] 111:15,19,22	232:7 243:19	196:25 199:13	207:18 209:21 230:8,11	210:20,25 211:22
111:22 112:4,7 117:7	<b>passengers</b> [28] 4:2,9	personal [3] 5:8,10 6:24	232:14,20 235:12,13 248:5	possession [1] 5:2
128:10,19 129:4,6 174:19	19:25 20:16,20 21:5,11 21:15 24:1,11,15 25:18	personally [1] 24:23	<b>placed</b> [1] 5:19	possibility [1] 14:5
pagers [1] 5:5	26:16 27:10 28:9 29:19	personnel [7] 4:18 8:18	T	<b>possible</b> [10] 8:7 14:22
pages [5] 112:1,10	30:3,14,17,19 32:3 33:10	8:22 20:19 27:3 37:2	placement [1] 18:17	30:13,24 49:24 65:13,14
161:19 162:10 194:23	137:14 141:9,18 227:15	111:7	<b>places</b> [7] 57:6 74:25 83:3,7,11 185:4 236:13	121:23 214:19 219:4
Palm [1] 219:8	232:16 244:2	perspective [5] 46:16	<b>plan</b> [16] 26:15 47:19	<b>possibly</b> [2] 182:17 204:14
pamphlet [2] 74:1	<b>passengers'</b> [2] 21:9 138:19	109:1 134:9 217:23	59:4,4,5 78:4 110:17,19	<b>post</b> [1] 206:11
126:12		235:19	110:24 120:9 121:20	L
pamphlet's [1] 126:16	<b>past</b> [5] 37:1 102:17 106:18 172:1 174:8	pertaining [1] 137:10	133:20 164:1 196:9 197:9	<b>posture</b> [2] 42:8 228:16
pamphlets [1] 72:25	patient [1] 39:18	<b>perturbed</b> [1] 236:1	197:13	<b>potential</b> [4] 37:20 173:23 174:5 230:12
<b>pan</b> [1] 68:6	pattern [1] 59:18	Petroleum [3] 129:20 130:9 246:4	plane [2] 74:6 139:7	potentially [1] 178:23
pandemics [1] 171:5	patterns [4] 39:11 58:16	<b>phase</b> [5] 14:9 156:15	planned [4] 26:12 74:23	pouring [1] 214:17
panel [4] 38:17 54:23	58:25 231:17	228:15,15,19	226:4 228:13	powerful [1] 242:11
217:15 220:1	pay [2] 4:2 16:17	phased [1] 228:8	<b>planning</b> [6] 43:4,6,11 43:22 78:12 88:8	<b>PowerPoint</b> [5] 1:9 64:3
panellists [1] 183:1	paying [1] 228:2	phases [1] 97:21		64:7 202:18 204:19
panels [2] 71:11 72:15	payload [3] 5:11 242:22	philosophy [1] 148:21	<b>plans</b> [3] 26:18 35:5 195:11	practical [4] 154:6 167:3
pants [1] 6:9	243:23	philosophy [1] 146.21 phone [8] 27:12 43:5	platform [11] 19:17 20:1	169:18 172:17
paper [5] 177:7 179:1,20	Peet [1] 248:5	47:12,18 88:2 106:6	25:15 36:13 39:17 43:5	practically [1] 171:22
182:24 184:3	penalty [1] 186:24	115:22 117:19	116:4 131:16 132:6,15	practices [7] 65:21 145:9
paperwork [1] 148:13	pendant [2] 94:9 231:19	phoned [1] 120:22	132:15	160:22 234:16,18 235:16
para-rescue [1] 56:10	pending [1] 228:24	phones [2] 5:5 120:18	platforms [3] 126:20	235:17
parables [1] 58:1	people [65] 2:25 4:3,8	photograph [1] 233:16	131:25 191:25	pre [4] 2:24 4:5 107:19
parallel [2] 48:8 49:18	18:23 19:24 28:5 31:20	phrase [1] 1:13	play [8] 20:6 34:11 56:23	199:25
parallels [1] 169:6	40:18 44:24,25 45:19,22	phrased [1] 104:12	58:4 59:3 138:1 146:14 155:16	pre-alert [2] 120:4,6
paramedic [1] 54:3	46:6 47:12 48:13 50:8	physically [4] 85:16	played [6] 2:14 17:8	pre-audit [1] 205:24
paramedicine [1] 57:16	50:21 51:12 53:15,21 55:1 57:11 63:12 80:16	87:17 102:11 231:4	19:16 34:16 138:4 146:16	pre-configured [1]
part [29] 20:5 35:10	86:18 87:18,18 100:7	physician [2] 50:22	player [2] 153:10 164:5	74:22
51:13 61:10 64:4 65:9	103:2,23 104:1 107:3	100:21	players [1] 167:12	<b>pre-flight</b> [4] 2:18 3:20 8:15 74:22
66:6 73:7,11 80:18 96:15	118:22,25 123:22 143:2	pick [12] 16:2 46:23	PLB [2] 6:24 15:8	
107:16 111:10 133:10 136:8 144:11,25 147:8	144:21 154:19,25 157:19	58:21 69:12 70:3,17	plug <sub>[1]</sub> 191:17	<b>pre-fuelled</b> [2] 74:22 84:23
148:21 155:3 160:10,11	160:6 162:6 165:23,24 174:1 176:6,7 178:23	106:7 115:17 163:5 166:10 185:4 204:14	poach [1] 103:23	precipitation [1] 77:7
165:17 187:10 195:1	179:3,6,11,19 183:24	<b>picked</b> [1] 67:24	pocket [1] 103.23	precision [2] 95:6,8
197:9 198:4 205:17	186:15,23 187:11 191:12	<b>piece</b> [12] 9:3 16:3 41:4	pockets [2] 7:4 15:11	preclude [1] 35:19
216:13	194:1 207:9 211:1 227:5	63:7,16 65:6,18 67:15	point [32] 3:15 23:22	preconfigured [3] 73:22
partially [2] 7:13,24	231:13 232:24 236:7	71:8 145:3 166:19 184:2	27:2,10 33:4 51:8 57:9	83:22 84:23
participant [1] 191:15	245:23	pieces [1] 63:17	57:18 67:1 71:17 93:25	predecessor [1] 102:19
participate [2] 97:20	<b>per</b> [7] 3:8 37:8 58:13 61:3 134:1 212:19 213:2	<b>pilot</b> [23] 12:25 13:8	94:5 97:17 103:9 116:9	predominantly [1]
102:13	perceived [1] 152:21	26:10,14,19 27:20,22	118:24 120:2,8 129:13	36:24
participated [1] 102:15	percent [14] 41:23 53:21	29:9 30:3 47:23 71:15	142:11 145:19 150:22 152:24 209:20 211:10	prefer [1] 1:17
participates [1] 160:18	83:1 94:10,13,16 105:6	88:13 93:4,18 110:13	215:19 221:8 229:10	preference [1] 161:15
participating [1] 96:9	190:25 212:10,11,14,17	138:19 139:19 190:22 200:22 205:23 213:6	234:25 237:15,18 244:8	preparation [4] 15:19
participation [2] 155:16	212:18,22	219:17 238:3	pointed [1] 39:21	51:16,17 137:19
187:7	perform [5] 35:2 118:25	<b>pilot's</b> [2] 16:24 140:11	points [3] 127:4 129:11	<b>preparations</b> [2] 26:22
particles [1] 23:17	146:7 202:8 238:1	<b>pilots</b> [19] 12:5 16:14	218:24	120:7
particular [13] 20:14,25	performance [2] 165:25	L		
			,	

Discoveries Unlimited Inc., Ph: (709)437-5028

Multi-Page <sup>TN</sup>	Л
--------------------------	---

#### prepare - redone Offshore Helicopter Safety Inquiry

			Offshore Helio	copter Safety Inquiry
prepare [3] 13:1,13	121:1 133:2,4 134:5	<b>public</b> [2] 26:16 147:2	51:22 52:2,14 53:16,20	reality [1] 86:5
88:18	135:6 136:3,6,8 145:1	<b>publication</b> [2] 127:14	55:13 56:1,14 67:24 68:1	realization [1] 195:25
prepared [8] 28:23	146:23 197:17 205:15,18	129:24	69:5,10 72:21 74:20 78:2	realize [2] 1:9 57:11
35:21 51:18,23 121:22	208:2 210:17 213:23	<b>pull</b> [7] 7:3 9:10,11 12:15	80:19 91:19 98:8 100:5	realized [1] 221:3
124:11 151:17 202:13	215:13,14,24 216:17,19 217:11 218:6 222:16	15:3 69:9 166:20	100:14 102:2 130:23 143:6 149:9 154:12	really [36] 4:8,10 20:8
preparedness [1] 170:5	224:21,23 225:23 226:7	pulled [3] 155:20,25	159:24 162:14 163:19	28:12,16 29:23 57:19
preparing [2] 121:16,16	226:9 231:10,11 232:14	157:5	167:11 176:17 182:3	60:24 100:8 155:3 157:6
preplanning [1] 89:6	232:19,22 241:23	pulling [3] 14:18 156:19	207:23 221:6 234:10	159:6,18,19 167:5,10
prepped [2] 40:24 77:19	processes [13] 146:20	196:15	236:1 237:20 242:3	170:23 176:2 178:15
prescription [1] 5:13	147:17 148:2,4,14,18	Puma [2] 92:15 244:4		189:4 207:6,12 208:13
presence [2] 161:2 204:4	168:3 177:20 195:8	<b>Pumas</b> [1] 20:23	R	210:1,23 220:18 221:4 224:3 229:12 230:15,23
present [3] 94:3 206:4	198:16,21,24 200:17	purchase [1] 174:24	rack [1] 65:11	233:3,11 234:8 237:8
241:15	<b>Producers</b> [2] 129:20 130:9	<b>purchased</b> [2] 87:3	radar [4] 39:13 66:5	239:8
<b>presentation</b> [13] 17:22	product [1] 195:25	229:3	67:14 230:22	rear [2] 10:19 24:4
103:7 134:10 151:12	professionals [1] 36:19	purchasing [1] 195:25	radio [2] 111:11 113:17	rearward [1] 13:18
171:6,8 215:10 217:13 219:25 223:5,12 225:21	profile [3] 218:25 219:2	purge [2] 9:24 10:2	raft [10] 14:18,24 15:16	reason [14] 8:4 24:9
219.25 225.5,12 225.21	219:6	<b>push</b> [4] 13:20 75:17	39:16 63:9,11,13,15	25:14 28:16,18 30:25
presentations [3] 19:18	program [8] 37:13	191:10 239:2	67:25 95:17	31:3 33:20 34:3 77:5
215:18 218:4	148:25 167:24 187:8	pushed [1] 165:18	rafts [4] 11:16 14:16,20	177:19 238:3 240:2 246:5
presenters [1] 171:10	188:4 198:12 226:19,25	pushing [1] 119:8	14:21	reasonably [5] 167:3 168:9,9 169:18 172:17
presently [1] 150:2	programs [8] 155:25	put [35] 19:11 24:10	<b>rail</b> [1] 245:23	reasons [2] 26:21 27:21
press [2] 75:13 94:1	156:19,21 159:10 163:12	26:15 32:3 40:17,19 41:19 57:1 65:19 66:12	<b>rain</b> [5] 7:9 15:15 76:13 76:24 77:1	receive [5] 8:18,23 10:14
pressed [2] 115:11	163:20 165:4 238:7	71:13,18 77:21,22 120:3	<b>raise</b> [3] 63:2 175:24	46:16 108:24
120:14	progressed [1] 121:13	122:5 130:20 155:9	188:10	received [4] 6:7 109:2
pressure [3] 8:8,25	prohibited [1] 5:17	156:10 157:8 166:15	raised [1] 220:9	120:18 227:4
10:15	promotion [1] 165:2	174:17,17 176:14 178:13	raises [1] 167:17	recently [1] 168:23
<b>presume</b> [1] 69:18	proper [8] 50:7 51:12	184:16 201:4 207:14,17 209:21 214:12 230:11	ramp [5] 24:4 77:22 80:9	recertification [3]
pretty [12] 31:21 36:2	76:25 93:3 96:19 176:9 176:10 232:25	233:18,24 243:24	211:5 232:17	236:19,20,21
56:3,23 60:18 109:12	properly [3] 20:15 169:8	puts [1] 182:6	ramps [2] 15:16 80:13	<b>recertified</b> [1] 236:22
122:11 172:14 185:14 205:20 231:4 232:3	232:18	putting [2] 6:12 99:20	randem [2] 210:16,19	<b>RECESS</b> [1] 71:23
203.20 231.4 232.3		<b>F</b>		
provented (1) 8.10	property [3] 86:11		range [4] 66:16 69:1	<b>recognition</b> [1] 103:25
<b>prevented</b> [1] 8:10	<b>property</b> [3] 86:11 107:11 132:22		<b>range</b> [4] 66:16 69:1 220:25 242:12	
previous [2] 58:7 134:4	107:11 132:22	-Q-	220:25 242:12	recognize [1] 218:3
<b>previous</b> [2] 58:7 134:4 <b>previously</b> [2] 14:13	107:11 132:22 proposal [1] 226:23	Q5 [1] 196:12	220:25 242:12 ranges [1] 135:3	
<b>previous</b> [2] 58:7 134:4 <b>previously</b> [2] 14:13 35:17	107:11 132:22 <b>proposal</b> [1] 226:23 <b>protect</b> [1] 9:2	Q5 <sub>[1]</sub> 196:12 QH&S <sub>[1]</sub> 209:24	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7]
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23	107:11       132:22         proposal       [1]       226:23         protect       [1]       9:2         protection       [11]       6:2       7:3         7:8       15:10,15       77:4       142:22         143:10,18       144:10       211:12	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14	107:11       132:22         proposal       [1]       226:23         protect       [1]       9:2         protection       [11]       6:2       7:3         7:8       15:10,15       77:4       142:22         143:10,18       144:10       211:12         protocol       [6]       25:10,17	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11]
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12 207:11	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11]
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12 207:11 <b>rare</b> [1] 8:12 <b>rate</b> [2] 8:2 77:3	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10
previous [2] 58:7 134:4         previously [2] 14:13         35:17         primarily [1] 184:13         primary [5] 35:11,23         39:5 48:8 124:14         priority [10] 26:14 31:19         89:5 108:9 134:9,17,20         135:4,5 152:1         ProAct [1] 192:18         proactive [8] 78:10	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12 207:11 <b>rare</b> [1] 8:12	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12 207:11 <b>rare</b> [1] 8:12 <b>rate</b> [2] 8:2 77:3 <b>rather</b> [2] 59:5 246:24 <b>RCC</b> [7] 44:14 100:16 114:25 117:13 118:1	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10
previous [2] 58:7 134:4         previously [2] 14:13         35:17         primarily [1] 184:13         primary [5] 35:11,23         39:5 48:8 124:14         priority [10] 26:14 31:19         89:5 108:9 134:9,17,20         135:4,5 152:1         ProAct [1] 192:18         proactive [8] 78:10         150:11,20 151:4 154:17         204:16 238:4,7	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16	220:25 242:12 <b>ranges</b> [1] 135:3 <b>rank</b> [2] 55:17 134:17 <b>rankings</b> [1] 166:5 <b>ranks</b> [1] 57:5 <b>rapidly</b> [2] 143:12 207:11 <b>rare</b> [1] 8:12 <b>rate</b> [2] 8:2 77:3 <b>rather</b> [2] 59:5 246:24 <b>RCC</b> [7] 44:14 100:16 114:25 117:13 118:1 120:11,25	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1]
previous [2] 58:7 134:4         previously [2] 14:13         35:17         primarily [1] 184:13         primary [5] 35:11,23         39:5 48:8 124:14         priority [10] 26:14 31:19         89:5 108:9 134:9,17,20         135:4,5 152:1         ProAct [1] 192:18         proactive [8] 78:10         150:11,20 151:4 154:17         204:16 238:4,7         problem [3] 109:24	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16 quarter [1] 226:19	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16 quarter [1] 226:19 quarters [1] 222:19	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3
previous [2] 58:7 134:4         previously [2] 14:13         35:17         primarily [1] 184:13         primary [5] 35:11,23         39:5 48:8 124:14         priority [10] 26:14 31:19         89:5 108:9 134:9,17,20         135:4,5 152:1         ProAct [1] 192:18         proactive [8] 78:10         150:11,20 151:4 154:17         204:16 238:4,7         problem [3] 109:24         110:14 175:24         problematic [1] 149:15	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16 quarter [1] 226:19 quarters [1] 222:19 questioned [1] 18:15	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16 quarter [1] 226:19 quarters [1] 222:19 questioned [1] 18:15 questioning [2] 240:24	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4	recognize [1] 218:3         recognized [3] 35:3,8         91:21         recommendation [7]         134:11 223:6 225:13         231:24 232:4,6 237:7         recommendations [11]         18:21 133:8,19,21,25         213:17 217:25 223:1,2,4         223:10         reconfiguration [1]         119:7         reconfigure [2] 45:19         47:13         reconfigured [2] 121:3         125:20         reconfiguring [1] 99:20
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12	$\begin{array}{c} \textbf{Q5}_{[1]} 196:12 \\ \textbf{QH\&S}_{[1]} 209:24 \\ \textbf{QH\&\&E}_{[1]} 202:3 \\ \textbf{qQ}_{[1]} 212:8 \\ \textbf{qualify}_{[4]} 200:20 205:21 \\ 234:21 236:12 \\ \textbf{quality}_{[15]} 22:11 55:3 \\ 130:14,18 149:8 195:5,7 \\ 195:14,16 196:25 198:8 \\ 198:10 199:11,21 202:3 \\ \textbf{quantifiable}_{[2]} 172:1 \\ 174:16 \\ \textbf{quarter}_{[1]} 226:19 \\ \textbf{quarters}_{[1]} 222:19 \\ \textbf{questioned}_{[1]} 18:15 \\ \textbf{questioning}_{[2]} 240:24 \\ 246:24 \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1	recognize [1] 218:3         recognized [3] 35:3,8         91:21         recommendation [7]         134:11 223:6 225:13         231:24 232:4,6 237:7         recommendations [11]         18:21 133:8,19,21,25         213:17 217:25 223:1,2,4         223:10         reconfiguration [1]         119:7         reconfigure [2] 45:19         47:13         reconfigured [2] 121:3         125:20         reconfiguring [1] 99:20         record [2] 102:9 179:21
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22	Q5 [1] 196:12 QH&S [1] 209:24 QHS&E [1] 209:24 QHS&E [1] 202:3 qQ [1] 212:8 qualify [4] 200:20 205:21 234:21 236:12 quality [15] 22:11 55:3 130:14,18 149:8 195:5,7 195:14,16 196:25 198:8 198:10 199:11,21 202:3 quantifiable [2] 172:1 174:16 quarter [1] 226:19 quarters [1] 222:19 questioned [1] 18:15 questioning [2] 240:24 246:24 questions [28] 16:25	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 recorded [1] 22:15
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 providers [1] 211:17	$\begin{array}{c} \textbf{Q5}_{[1]} 196:12 \\ \textbf{QH\&S}_{[1]} 209:24 \\ \textbf{QH\&\&E}_{[1]} 202:3 \\ \textbf{qQ}_{[1]} 212:8 \\ \textbf{qualify}_{[4]} 200:20 205:21 \\ 234:21 236:12 \\ \textbf{quality}_{[15]} 22:11 55:3 \\ 130:14,18 149:8 195:5,7 \\ 195:14,16 196:25 198:8 \\ 198:10 199:11,21 202:3 \\ \textbf{quantifiable}_{[2]} 172:1 \\ 174:16 \\ \textbf{quarter}_{[1]} 226:19 \\ \textbf{quarter}_{[1]} 222:19 \\ \textbf{quarter}_{[1]} 222:19 \\ \textbf{quastioned}_{[1]} 18:15 \\ \textbf{questioning}_{[2]} 240:24 \\ 246:24 \\ \textbf{questions}_{[28]} 16:25 \\ 38:17 137:24 138:3,8,10 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 recorded [1] 22:15 records [2] 117:23
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provides [7] 34:14 37:25	$\begin{array}{c} \textbf{Q5}_{[1]} 196:12 \\ \textbf{QH\&S}_{[1]} 209:24 \\ \textbf{QH\&\&E}_{[1]} 202:3 \\ \textbf{qQ}_{[1]} 212:8 \\ \textbf{qualify}_{[4]} 200:20 205:21 \\ 234:21 236:12 \\ \textbf{quality}_{[15]} 22:11 55:3 \\ 130:14,18 149:8 195:5,7 \\ 195:14,16 196:25 198:8 \\ 198:10 199:11,21 202:3 \\ \textbf{quantifiable}_{[2]} 172:1 \\ 174:16 \\ \textbf{quarter}_{[1]} 226:19 \\ \textbf{quarters}_{[1]} 222:19 \\ \textbf{quarters}_{[1]} 222:19 \\ \textbf{questioned}_{[1]} 18:15 \\ \textbf{questioning}_{[2]} 240:24 \\ 246:24 \\ \textbf{questions}_{[28]} 16:25 \\ 38:17 137:24 138:3,8,10 \\ 138:14 176:18 210:10 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 recorded [1] 22:15 records [2] 117:23 130:23
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QH\&\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 202:3 \\ \textbf{qQ} \ \textbf{[1]} \ 212:8 \\ \textbf{quality} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quastionsd} \ \textbf{[28]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 recorded [1] 22:15 records [2] 117:23 130:23 recruit [1] 36:23
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QH\&\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 202:3 \\ \textbf{qQ} \ \textbf{[1]} \ 212:8 \\ \textbf{quality} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quastioned} \ \textbf{[1]} \ 18:15 \\ \textbf{questioning} \ \textbf{[2]} \ 240:24 \\ 246:24 \\ \textbf{questions} \ \textbf{[28]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17 207:9 218:7 219:14	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18 providing [6] 4:18 82:9	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 209:23 \\ \textbf{qHS\&E} \ \textbf{[1]} \ 202:3 \\ \textbf{qQ} \ \textbf{[1]} \ 212:8 \\ \textbf{quality} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quastions} \ \textbf{[28]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ 240:11 \ 246:19,21,25 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3 125:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2 recurrency [1] 60:1
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 202:3 \\ \textbf{qQ} \ \textbf{[1]} \ 212:8 \\ \textbf{quality} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[1]} \ 222:19 \\ \textbf{quastions} \ \textbf{[28]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ 240:11 \ 246:19,21,25 \\ \textbf{quick} \ \textbf{[7]} \ 51:25 \ 65:5,12 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7 51:9 57:7 74:24 75:11	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2 recurrency [1] 60:1 recurrent [6] 59:14,15
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17 207:9 218:7 219:14 proceed [4] 16:4 108:4	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provider [2] 8:17,22 provider [1] 211:17 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18 providing [6] 4:18 82:9 85:15 96:22 104:10	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QH\&\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 202:3 \\ \textbf{qQ} \ \textbf{[1]} \ 212:8 \\ \textbf{qualify} \ \textbf{[4]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[2]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ 240:11 \ 246:19,21,25 \\ \textbf{quick} \ \textbf{[7]} \ 51:25 \ 65:5,12 \\ 65:14,14 \ 75:2 \ 138:14 \\ \textbf{and and and and and and and and and and $	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2 recurrency [1] 60:1 recurrent [6] 59:14,15 59:16,19,22 60:5
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17 207:9 218:7 219:14 proceed [4] 16:4 108:4 159:6 168:10	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provides [1] 211:17 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18 providing [6] 4:18 82:9 85:15 96:22 104:10 175:25	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[2]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ 240:11 \ 246:19,21,25 \\ \textbf{quick} \ \textbf{[7]} \ 51:25 \ 65:5,12 \\ 65:14,14 \ 75:2 \ 138:14 \\ \textbf{quickly} \ \textbf{[5]} \ 37:7 \ 59:5 \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7 51:9 57:7 74:24 75:11 75:13 76:10 77:20 88:9 94:4 110:18 124:11 real [6] 78:4 120:6 152:23	recognize [1] 218:3 recognized [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigure [2] 121:3 125:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2 recurrency [1] 60:1 recurrent [6] 59:14,15 59:16,19,22 60:5 red [10] 8:24 14:18 65:3
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17 207:9 218:7 219:14 proceed [4] 16:4 108:4 159:6 168:10 Proceeding [1] 116:4 process [52] 19:19 21:12 38:10 45:1 72:5 75:23	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18 providing [6] 4:18 82:9 85:15 96:22 104:10 175:25 proving [1] 96:12	$\begin{array}{c} \textbf{Q5} [1] 196:12 \\ \textbf{QH\&S} [1] 209:24 \\ \textbf{QH\&\&E} [1] 202:3 \\ \textbf{qQ} [1] 212:8 \\ \textbf{qualify} [4] 200:20 205:21 \\ 234:21 236:12 \\ \textbf{quality} [15] 22:11 55:3 \\ 130:14,18 149:8 195:5,7 \\ 195:14,16 196:25 198:8 \\ 198:10 199:11,21 202:3 \\ \textbf{quantifiable} [2] 172:1 \\ 174:16 \\ \textbf{quarter} [1] 226:19 \\ \textbf{quarters} [1] 222:19 \\ \textbf{questions} [28] 16:25 \\ 38:17 137:24 138:3,8,10 \\ 138:14 176:18 210:10 \\ 213:20 214:2,6,7,12,13 \\ 214:21 215:12 216:11,12 \\ 216:12,13 217:2,6 234:7 \\ 240:11 246:19,21,25 \\ \textbf{quick} [7] 51:25 65:5,12 \\ 65:14,14 75:2 138:14 \\ \textbf{quickly} [5] 37:7 59:5 \\ 87:7,12 224:12 \\ \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7 51:9 57:7 74:24 75:11 75:13 76:10 77:20 88:9 94:4 110:18 124:11 real [6] 78:4 120:6 152:23 179:10 191:17 221:4	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 reconfiguring [1] 99:20 record [2] 102:9 179:21 records [2] 117:23 130:23 recruit [1] 36:23 recurrencies [1] 60:2 recurrency [1] 60:1 recurrent [6] 59:14,15 59:16,19,22 60:5
previous [2] 58:7 134:4 previously [2] 14:13 35:17 primarily [1] 184:13 primary [5] 35:11,23 39:5 48:8 124:14 priority [10] 26:14 31:19 89:5 108:9 134:9,17,20 135:4,5 152:1 ProAct [1] 192:18 proactive [8] 78:10 150:11,20 151:4 154:17 204:16 238:4,7 problem [3] 109:24 110:14 175:24 problematic [1] 149:15 procedure [9] 14:12 22:5,5 117:18,24 120:1 130:21 210:16 219:6 procedures [20] 4:22 14:3,4 16:23 23:11 37:5 118:1 137:5 146:20 151:8 164:3 172:25 186:24 196:4 198:17,24 200:17 207:9 218:7 219:14 proceed [4] 16:4 108:4 159:6 168:10 Proceeding [1] 116:4 process [52] 19:19 21:12	107:11 132:22 proposal [1] 226:23 protect [1] 9:2 protection [11] 6:2 7:3 7:8 15:10,15 77:4 142:22 143:10,18 144:10 211:12 protocol [6] 25:10,17 44:10 88:1 109:9,18 protocols [1] 35:5 proud [1] 5:23 prove [2] 96:20 134:25 provide [16] 7:21 28:2 34:18 39:7 48:16 74:11 107:11 110:7 126:3 142:2 143:20,21 144:9 211:18 214:23 215:21 provided [7] 11:6 15:17 19:18,22 49:11 126:6 161:12 provides [1] 211:17 provides [7] 34:14 37:25 68:19 71:12 104:18 110:2 126:18 providing [6] 4:18 82:9 85:15 96:22 104:10 175:25 provision [1] 96:12 provision [1] 230:19	$\begin{array}{c} \textbf{Q5} \ \textbf{[1]} \ 196:12 \\ \textbf{QH\&S} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 209:24 \\ \textbf{QHS\&E} \ \textbf{[1]} \ 200:20 \ 205:21 \\ 234:21 \ 236:12 \\ \textbf{quality} \ \textbf{[15]} \ 22:11 \ 55:3 \\ 130:14,18 \ 149:8 \ 195:5,7 \\ 195:14,16 \ 196:25 \ 198:8 \\ 198:10 \ 199:11,21 \ 202:3 \\ \textbf{quantifiable} \ \textbf{[2]} \ 172:1 \\ 174:16 \\ \textbf{quarter} \ \textbf{[1]} \ 222:19 \\ \textbf{quarters} \ \textbf{[2]} \ 16:25 \\ 38:17 \ 137:24 \ 138:3,8,10 \\ 138:14 \ 176:18 \ 210:10 \\ 213:20 \ 214:2,6,7,12,13 \\ 214:21 \ 215:12 \ 216:11,12 \\ 216:12,13 \ 217:2,6 \ 234:7 \\ 240:11 \ 246:19,21,25 \\ \textbf{quick} \ \textbf{[7]} \ 51:25 \ 65:5,12 \\ 65:14,14 \ 75:2 \ 138:14 \\ \textbf{quickly} \ \textbf{[5]} \ 37:7 \ 59:5 \end{array}$	220:25 242:12 ranges [1] 135:3 rank [2] 55:17 134:17 rankings [1] 166:5 ranks [1] 57:5 rapidly [2] 143:12 207:11 rare [1] 8:12 rate [2] 8:2 77:3 rather [2] 59:5 246:24 RCC [7] 44:14 100:16 114:25 117:13 118:1 120:11,25 RCMP [1] 117:18 reach [1] 18:24 reached [1] 17:1 reaction [1] 241:4 reactive [2] 78:9 150:10 read [5] 12:22 17:4 141:6 143:6 242:9 readily [1] 191:19 reading [2] 4:4 244:16 ready [19] 1:3 4:15 23:3 36:12 49:20,21 50:4 51:7 51:9 57:7 74:24 75:11 75:13 76:10 77:20 88:9 94:4 110:18 124:11 real [6] 78:4 120:6 152:23	recognize [1] 218:3 recognize [3] 35:3,8 91:21 recommendation [7] 134:11 223:6 225:13 231:24 232:4,6 237:7 recommendations [11] 18:21 133:8,19,21,25 213:17 217:25 223:1,2,4 223:10 recommended [1] 134:2 reconfiguration [1] 119:7 reconfigure [2] 45:19 47:13 reconfigure [2] 45:19 47:13 reconfigured [2] 121:3 125:20 record [2] 102:9 179:21 recorded [1] 22:15 records [2] 117:23 130:23 recurrencies [1] 60:2 recurrency [1] 60:1 recurrent [6] 59:14,15 59:16,19,22 60:5 red [10] 8:24 14:18 65:3 78:6 79:23 172:7 173:1

### Discoveries Unlimited Inc., Ph: (709)437-5028

## **Multi-Page**<sup>™</sup>

#### reduce - safety Offshore Helicopter Safety Inquiry

			Offshore Heli	copter Safety Inquiry
<b>reduce</b> [1] 147:9	relies [1] 70:15	3:16,19 6:20 103:9 136:6	rest [5] 3:15 80:25 111:6	182:12 207:12
reenforced [1] 232:8	<b>relieved</b> [1] 244:19	141:4 147:14 148:15	159:1 162:9	<b>RNC</b> [1] 117:17
reenforcement [1]		163:15 236:9	restated [1] 217:22	
232:1	rely [1] 100:6	requires [5] 8:13 21:16	restricted [1] 38:3	<b>role</b> [5] 36:15 60:12 90:18 117:14 155:18
	remain [4] 13:10 14:8	38:24 43:9 109:25	result [1] 25:25	
reenforcing [1] 232:22	15:22 17:2	rescue [120] 34:17,22		roles [1] 149:22
<b>refer</b> [6] 111:14 113:2	remains [1] 35:12	35:1,3,6,8,10,13 36:10	results [5] 197:18,19,23	rolled [1] 65:11
126:11 127:10 161:22 232:21	remark [1] 245:1	36:17,18,23 37:1,13 38:5	202:16 206:22	rolling [3] 65:5 148:24
	remember [6] 15:13	38:7 39:2,4,6,8,15 40:19	retaining [1] 227:16	197:13
<b>reference</b> [4] 17:10 64:21 93:1 160:3	16:9,22,24 79:4 116:11	40:21,23 41:1,2 44:14	retire [1] 55:14	room [2] 30:19 183:11
	remembering [1] 10:7	45:10 47:23 48:15 50:20	retirement [1] 53:19	<b>rope</b> [3] 63:10,11,13
<b>referred</b> [2] 204:19 241:20	remind [1] 10:13	52:4,24,25 53:1,5 54:4 54:19 55:11,18 56:3,5	<b>retribution</b> [1] 186:22	<b>Rose</b> [1] 244:4
referring [4] 126:23	remotely [2] 11:18 14:15	56:12,13,17,24 57:16	return [11] 3:24 8:6	rotate [2] 13:17,19
128:15 129:9,21	remove [5] 9:6 13:2,3	59:2 60:23 61:7 62:18	21:18 25:9,12 156:11	rotating [1] 36:14
refine [1] 119:3	13:12,15	63:4,5,18,22,22 65:3	213:13,17,23 218:6 221:9	rotor [8] 12:8 16:15 77:2
	removed [1] 9:3	66:17,18,19 68:18 73:2	<b>returned</b> [1] 34:1	77:3 141:25 236:2,14
refined [1] 116:2	removing [1] 40:15	82:13 88:11,11 89:1,2,2	returning [2] 8:11	240:6
reflects [1] 152:22	<b>replaced</b> [1] 1:12	89:4 90:16,17 91:13,13	217:17	rotors [3] 14:19 76:22
<b>refuel</b> [5] 20:14 21:10,15	replicated [1] 219:11	94:4,9,12,14,17,18 96:11 96:25 100:10,18 101:5	returns [1] 4:1	242:25
23:10 130:17	report [16] 29:5 133:7,7	102:20 103:10,14,14	revenue [1] 128:3	Rotterdam [1] 127:22
refuelled [2] 40:20	178:10 179:14 182:6	107:21 109:3,13,25 110:7	revert [1] 58:8	roughly [1] 3:4
121:22	184:6 186:15 192:8,14	121:7,21 122:21,21,25	review [6] 90:7 148:19	rounded [1] 57:19
<b>refueller</b> [1] 86:13	194:10 203:20 213:18	124:5,12,15,16,19 125:5	198:1,1,3,5	route [4] 26:3,12 159:15
refuellers [1] 80:14	214:10,22 217:25	125:11,15,21,21,23 126:2	revise [1] 219:2	193:22
<b>refuelling</b> [5] 21:16 23:8	reported [3] 179:16	126:7 172:18 211:7 216:23 227:6,8,13,17	revised [3] 1:11 218:24	routines [1] 163:25
23:12,22 80:16	186:1,4	231:20 238:12	219:6	<b>rule</b> [2] 8:2,4
regard [2] 44:3 235:4	<b>reporting</b> [25] 134:23	rescues [2] 55:24 63:19	revision [1] 218:7	rules [3] 24:23 148:8
regarding [1] 60:16	150:4,6 153:12 154:17	research [3] 174:8	revisions [2] 137:3,9	154:18
regardless [3] 34:22	154:24 165:8,21 167:4	211:11 235:10	<b>RICHARD</b> [2] 2:10,10	<b>run</b> [2] 22:17 116:2
51:6 120:2	171:23 176:24,25 177:4 177:20,25 178:3 182:25	researched [1] 211:13	<b>Rick</b> [6] 55:5,9 57:17	running [4] 44:3 118:9
regards [3] 215:5 223:24	183:20,22,23 184:19	resides [1] 111:9	110:18 134:23 137:16	188:3,24
245:12	185:2 192:12 194:1	residual [1] 10:16	rig [11] 19:16,25 25:15	runs [1] 10:11
regiment [1] 37:12	197:17		39:24 43:5 46:22 116:5	
register [2] 166:8 174:4	represent [1] 217:1	resistant [1] 140:21	117:3 131:5 192:6 239:12	-S-
registrar [9] 4:13 111:1	representation [5]	<b>resource</b> [1] 204:6	right [86] 1:25 2:5 19:10	
111:19 112:3 114:5	188:12,18 189:7 190:22	resources [3] 147:1	22:8 29:8 30:3 42:16,17	<b>S</b> [2] 12:12 220:25
146:14 163:2 199:2 202:6	190:24	175:17 205:14	43:2,17,25,25 47:2 48:1	<b>S-61</b> [3] 20:24 68:14
regular [2] 118:8 227:14	representations [1]	respect [5] 18:17 24:18 86:24 97:12 137:1	49:20 50:24 54:15,23 61:25 67:14 70:8 72:2	168:22
regulate [1] 61:10	103:4		73:5 78:14 81:14 87:24	<b>S-92</b> [11] 4:23 11:16 24:1
regulated [12] 3:7 60:9	representatives [2]	respectfully [1] 245:15	88:3 99:13 101:8,19	24:19 89:20 92:14 103:7 223:16 238:25 239:2
147:10 158:7 159:5	206:5 245:19	respective [1] 133:10	105:16 111:9 113:9,15	241:5
195:18,24 196:5,7 237:23 238:1 245:23	represented [1] 66:7	respectively [2] 92:17 136:17	116:18 119:8 123:7 129:9	<b>S-92s</b> [6] 68:14 71:2
regulates [1] 91:3	represents [1] 239:2		140:8 141:12 143:15	90:12,17 103:3 105:4
regulation [6] 154:14	reproduced [2] 194:18	<b>respond</b> [9] 35:21 36:1 36:3.5.12 106:13 146:10	144:10 151:25 152:20 153:1 158:16 164:22	safe [3] 4:18 169:21
157:2 159:9,16 235:5	194:20	205:17 206:15	166:11 173:13,25 174:5	174:15
245:25	reputable [1] 235:12	responded [1] 125:4	176:7,14 178:23 179:8	safely [3] 6:10 166:22
regulations [6] 25:4	reputation [1] 174:1	responding [3] 35:19	182:12 184:4,7 189:1,7	241:14
157:1 191:3 199:5 238:19	request [6] 36:1 106:4	119:19 121:1	189:22 190:10 194:12	safety [138] 2:18 4:21 6:5
245:24	127:21 144:16 145:10,22	response [47] 34:9,10	197:9 207:18 208:23	7:18 12:22 16:10 17:5
<b>regulator</b> [4] 9:2,8 14:10	requested [3] 104:18	34:14,19,20 35:5,11,24	209:13 210:19 213:4 214:16 215:16 216:1,8,8	30:7,7,8 55:3 90:22 91:2
91:21	128:1 148:19	35:25 36:6,7,10,13,15	217:19 220:18 224:2,19	94:22 117:16 134:18 135:8 137:25 138:2
regulators [1] 148:16	requests [2] 108:24 109:2	36:15 37:20 38:1,2,20	226:8 228:10 229:24	142:17,21 145:17 146:13
regulatory [15] 3:12,14		38:23 40:5,14 42:17	231:13 234:3 236:15	146:17,17,22 147:2,2,12
38:9 127:10 147:14,20	require [2] 36:22 116:7	43:13,15 44:5 49:22 65:1 65:14 74:17 84:2 85:2	237:20 244:11	147:16,18,21,24,25 148:1
148:19 159:11 163:24 164:12 165:22 170:12	<b>required</b> [21] 4:22 29:15 31:23 34:18 35:1,22 36:2	86:14 110:3,7,17,19,24	rigid [1] 151:7	148:4,7,10,12 149:21
201:16 235:8 239:19	37:14,16 100:5,17 117:25	120:3,9,13 131:2 146:1	rigs [2] 126:20 191:25	151:4,13,24 152:1,5,15
reintroduce [1] 168:24	142:13 158:8,12 210:24	170:5 225:18 226:15,25	ring [1] 93:14	152:17,20,20,23,25 153:15,16,18,22 154:7
relation [1] 160:12	219:17 236:11,14 239:23	responsibilities [3]	rings [1] 6:10	154:10 155:12,20,22,23
relationship [1] 52:3	243:22	117:8,11 169:2	risk [28] 5:9 56:19 77:1	156:3,8,13,21,22 158:2
-	requirement [12] 3:12	responsibility [6] 22:11	95:24 146:24 152:6	160:7,13,23 161:1 163:18
release [1] 12:18	3:14 24:14 39:1 62:14	35:24 109:5 154:16	161:16,21 166:3,4,6,13	164:1 165:2,4,7,8 166:8
released [1] 57:24	105:21 141:17,17 236:16	195:15 238:6	166:13,20,25 167:2,22	166:12 167:18,21 168:5
relevant [1] 218:12	236:17 240:6 242:5	responsible [4] 38:24	169:15 171:7,10,21,24 172:6 174:12,20 176:18	168:8 170:3,9 171:23 172:25 174:21 176:24
	requirements [11] 3:6	102:24 196:25 199:13	1,2.01,7.12,201/0.10	1,2.20 1/1.21 1/0.27

Discoveries Unlimited Inc., Ph: (709)437-5028

## **Multi-Page**<sup>™</sup>

#### salt - sometime Offshore Helicopter Safety Inquiry

			Offshore Heli	copter Safety Inquiry
177:4,15,18 179:20 187:8	235:3 244:14,17,20,24	212:8 226:7 235:17 237:5	shags [1] 65:24	sits [2] 71:10 172:3
187:11,16,17,20,23,25	245:14	240:2	share [1] 163:20	sitting [4] 6:11 44:1 68:4
188:2,4,14,15 189:1,12	seal [2] 9:13 130:17	seeing [6] 46:8,8 64:5	shared [1] 204:1	245:19
189:15,17 190:8 191:13	seals [3] 6:13 13:6 16:22	165:25 167:8 204:15	<b>sharing</b> [3] 160:22 161:8	<b>situation</b> [13] 14:24
191:18,24 192:4,9,18,23 193:5,20 195:1 199:16	seamless [1] 44:3	<b>seek</b> [1] 36:24	162:13	51:10 94:12 106:9,12
201:17 202:3 210:10,14	search [55] 34:22 35:1,2	seeking [1] 244:16	<b>sharp</b> [1] 6:10	107:24 108:3 120:24,25
210:23,24 211:24 223:6	35:7 36:10,25 37:13 39:7	seem [2] 159:8 162:14	<b>shed</b> [1] 77:3	123:15 131:16 145:21 225:7
225:2,10 234:10,14,14	39:11,12 40:19,21 41:1	<b>sees</b> [1] 148:25	sheets [1] 117:25	
235:16,17,18 246:6,6	41:1 52:4 56:5,12,13,17	segment [1] 20:7	<b>shelf</b> [2] 119:4 241:12	situational [2] 80:7,11
salt [2] 40:18 178:18	56:24 58:16,25 63:20,21 63:23 66:13,16,18,24	segments [1] 38:16	Shell [4] 22:25 23:15	<b>situations</b> [3] 9:4 149:24 213:6
sample [6] 21:23 22:25	68:7,8,9,18 69:7 71:10	selected [1] 116:12	81:21 82:1	<b>six</b> [3] 106:19 208:7 217:3
23:3,6,13 128:7	71:12,13 73:2 82:13,15	selecting [1] 211:25	shield [2] 7:7 15:13	sixty-five [1] 214:12
sampler [1] 22:19	88:10 89:4 90:16,17	<b>selection</b> [1] 211:25	<b>shift</b> [1] 47:10	<b>size</b> [6] 6:14 77:7 139:19
samples [1] 22:14	91:12,13 96:11 101:5	<b>self</b> [1] 26:9	<b>ship</b> [1] 37:22	140:2 239:25 240:6
<b>SAR</b> [37] 35:11,12 44:21	109:3 126:2,7 172:18 227:6,13 238:11	self-contained [1] 7:15	shock [1] 124:1	<b>SKAD</b> [1] 63:6
44:21 45:9,10,11 58:15 59:5 61:2,16 73:21,22	searching [2] 38:3 123:5	<b>senior</b> [3] 44:15 55:17	<b>shoot</b> [1] 67:20	skills [6] 36:19,21 37:8
74:6 75:4 78:22 80:23	SeaRose [1] 132:5	127:1	<b>shop</b> [1] 155:22	37:24 54:1,10
81:11 83:12,15,23 84:14	seasonal [1] 86:9	sense [4] 135:21 175:6	shoulder [3] 9:9 12:15	Sky [2] 115:17 120:12
91:14 99:17,22,25 101:5	seasonally [1] 81:25	200:22 244:20	232:14	slated [1] 181:24
109:3 115:13 120:13,21	seat [6] 11:13 12:23 18:9	sensitive [1] 210:24	<b>show</b> [7] 3:7,9 23:5,6	<b>slide</b> [49] 1:10,12,13 2:1
145:24 169:5 173:8 175:17 225:15 238:11	40:17 233:15,21	sent [2] 127:4 146:2	51:8 151:22 173:18	13:18 19:2 25:8,9 52:20
sat [2] 218:9,14	seatbelt [9] 12:12 13:3	separate [4] 24:7 139:3	showed [1] 234:1	52:22 53:3 61:21,23 62:3
satisfied [2] 161:20	15:23,23 16:19 17:2	155:25 209:10	<b>showing</b> [3] 64:4 80:15	62:8 64:13 73:1,1 151:12
169:19	18:10 232:1 233:1	separated [1] 177:21	170:1	151:16 153:1,23,24,24 161:16,20 171:6,7,12,14
saw [5] 17:9 187:15	seatbelt's [1] 232:13	<b>sequence</b> [3] 40:13 44:12	<b>shown</b> [3] 3:21,22,23	173:5 176:23 177:2,24
189:22 214:10 233:25	seatbelts [7] 12:12,18	44:23	side [22] 11:21 12:5,17	177:25 178:4 183:7
says [10] 46:22 58:16	232:7,19 233:4,6 239:3	series [3] 88:5 149:4	13:22 16:14 130:13 134:6	186:11 187:15 196:24
60:8 110:13 113:2 115:19	seated [3] 15:22 17:2	158:3	150:9,21 153:18 163:24	199:11 210:12 217:14,21
178:20 198:20 225:15	232:16	serious [2] 105:23 145:11	165:18 173:24 174:5,15 189:6,15,17 202:5 220:3	223:13,13 232:5 233:9,9
237:7	seats [13] 13:23 18:25	seriously [1] 239:7	220:6 222:11	<b>slides</b> [5] 161:14,15 173:6 194:19,19
SCADs [1] 38:5	40:15 41:6 43:20 45:3 45:20 47:13 72:7 73:17	serve [1] 50:8	sidebar [1] 172:11	slight [1] 1:9
scale [1] 150:12	121:5 239:3 243:25	served [1] 78:10	sign [5] 15:24 17:3 23:20	slipped [2] 193:13,14
<b>scenario</b> [13] 109:22 110:20 111:4 116:1,11	second [12] 9:1,8 65:25	serves [1] 84:5	168:7 169:21	<b>slope</b> [1] 176:4
116:16,20,24 118:16,19	71:1,2 115:7 124:15	service [37] 34:1 38:25	signage [1] 130:10	<b>slot</b> [1] 19:13
171:18 227:9 228:18	125:3,19,21 189:1 230:22	38:25 40:1,1 74:10,12	signalled [1] 98:3	<b>slots</b> [1] 224:20
scenarios [8] 36:4 37:20	seconds [2] 75:20 87:6	74:13 75:4 79:9 80:6 81:11,14 82:9 85:1 91:18	signals [1] 69:11	
47:5 52:21 59:1 104:5	secretary [1] 165:12	100:17 104:10,13 105:7	significance [1] 62:10	slower [1] 86:13
219:12,13	section [14] 10:20 11:17	105:7 107:9,9,12 109:25	significant [6] 69:11	<b>slug</b> [1] 22:22
scene [2] 124:17 125:18	18:1 24:4 34:9 114:2	126:9,17,23 131:9,11	70:13 94:8 206:21 227:17	small [1] 142:11
scheduled [2] 147:11	137:24 146:12 170:4 210:6,10 213:12 215:14	146:8 156:12 175:25 211:18 213:17,23 218:6	235:12	smaller [1] 95:18
148:23	210.0,10 213.12 213.14 218:16	serviceability [1]	significantly [2] 67:25	<b>smattering</b> [1] 202:19
scheduling [1] 169:11	<b>sector</b> [1] 235:4	106:17	243:20	Smith [2] 46:23,24
school [1] 37:17	secure [7] 12:14 22:24	serviceable [1] 36:11	<b>signing</b> [1] 166:23	<b>smoking</b> [1] 5:11
schools [2] 56:9,13	65:4 117:22,23 123:20	services [13] 34:13 39:8	<b>Sikorsky</b> [5] 4:22 11:16	<b>smoothly</b> [1] 37:7
science [1] 205:20	123:23	48:23 49:12,12 74:18	96:10 97:18 222:3 similar [6] 6:12 37:5	<b>SMS</b> [16] 146:23 147:7
<b>scope</b> [6] 38:23 62:14,25	secured [2] 23:22 124:24	105:18 106:14,21 109:19	<b>Similar</b> [6] 6:12 37:5 95:5 214:7 217:4 219:10	153:16 157:2,12,17 158:24 159:13 163:15
84:25 126:25 207:3	securely [1] 233:6	126:2,5 211:17	simple [3] 8:15 175:5,9	189:24 190:3,7 195:13
<b>Scotia</b> [1] 246:8	security [6] 7:6 48:17	servicing [1] 21:1	simple [3] 8.13 175.5,9 simply [1] 37:2	198:12 200:1 245:4
<b>screen</b> [5] 3:3 68:5	50:6 100:12 124:25 211:5	serving [1] 98:6	simply [1] 57:2 simulated [1] 58:21	sock [1] 140:14
111:20 211:22,22 screened [1] 57:15	<b>see</b> [58] 2:21,24 4:4 22:22	set [20] 54:10 59:8 147:17	simulator [4] 95:14	sockettes [1] 140:13
screens [2] 44:20 115:14	23:17 26:9 27:13,15,18	150:14,18 151:1 154:18	219:9,10 236:18	socks [1] 6:9
screens [2] 44:20 115:14 scroll [5] 112:21 128:25	29:17 31:22 33:7,16 38:17 44:22 46:3 53:3	163:12 164:22,25 166:20 168:1 185:3 195:12	<b>single</b> [7] 12:4 16:13 27:2	software [5] 196:14
<b>SCFOII</b> [5] 112:21 128:25 129:2 163:8,8	63:5,17 65:17 66:4,14	198:23 204:13 205:25	33:4 75:25 147:5 148:7	229:12 231:14,15,16
scrolling [1] 129:8	67:19,21 69:23 77:15	206:9 213:19,20	sister [1] 220:22	<b>solely</b> [1] 228:5
10 VI VIIIIG [1] 147.0	112.17 115.2 140.19	sets [2] 85:4,4	<b>sit</b> [8] 68:5 102:5 133:10	solidified [1] 210:1
	113:17 115:2 140:18	5005[2] 05.4,4	510 00.5 102.5 155.10	
scrutinize [1] 207:12	141:6,24 142:11 149:15	setting [1] 154:10	150:2 162:17 178:2	solution [1] 221:12
scrutinize [1] 207:12 SCUBA [2] 7:16,17	141:6,24 142:11 149:15 151:21 155:2 161:22		150:2 162:17 178:2 196:19 197:25	<b>someone</b> [4] 42:25 47:18
scrutinize [1] 207:12 SCUBA [2] 7:16,17 se [1] 61:3	141:6,24 142:11 149:15	setting [1] 154:10	150:2 162:17 178:2 196:19 197:25 <b>site</b> [13] 40:22 42:12,12	<b>someone</b> [4] 42:25 47:18 47:19 122:1
scrutinize [1] 207:12 SCUBA [2] 7:16,17 se [1] 61:3 sea [18] 15:8 63:6 70:13	141:6,24 142:11 149:15 151:21 155:2 161:22 162:16 164:2 170:18 172:2 173:25 174:2 177:17,24 178:2,13	setting [1] 154:10 seven [1] 170:17	150:2 162:17 178:2 196:19 197:25 <b>site</b> [13] 40:22 42:12,12 44:2 70:15 80:17 85:16	<b>someone</b> [4] 42:25 47:18 47:19 122:1 <b>something's</b> [1] 179:10
scrutinize [1] 207:12 SCUBA [2] 7:16,17 se [1] 61:3	141:6,24 142:11 149:15 151:21 155:2 161:22 162:16 164:2 170:18 172:2 173:25 174:2	<b>setting</b> [1] 154:10 <b>seven</b> [1] 170:17 <b>several</b> [3] 214:5 215:16	150:2 162:17 178:2 196:19 197:25 <b>site</b> [13] 40:22 42:12,12	<b>someone</b> [4] 42:25 47:18 47:19 122:1

Discoveries Unlimited Inc., Ph: (709)437-5028

## **Multi-Page**<sup>™</sup>

#### sometimes - tab Offshore Helicopter Safety Inquiry

24:25 somewhart n         spend n         21:19 spent n         spend n         21:19 spend n <td< th=""><th></th><th></th><th></th><th></th><th>copter Safety Inquiry</th></td<>					copter Safety Inquiry
50:10762:103:22         52:18233         52:19:10:20:21:19         51:18:14         51:19:10:20:21:19         51:18:14         51:19:11:12:12:12:12:12:12:12:12:12:12:12:12:		<b>spectrum</b> [1] 119:6	145:25 169:6	strategically [1] 184:1	<b>supervisor</b> [1] 179:8
201:3.2 03:10 23:62         Summethart [1] 95:20         Sumpost [1] 95:11 85:19         Street [1] 94:85:3         Street [1] 94:15:3         Sumpost [1] 17:13         Sumpost [1] 17:13         Sumpost [1] 12:16         Sumpost [1] 12:16:16         Sumpost [1] 12:16         Sumpost		<b>speed</b> [6] 92:12,14,15,16	stands [2] 63:6 184:11	strategy [3] 215:21	<b>supplied</b> [1] 40:2
201-33         203-10         Spell [n]         150-16         26-22         302         75:15         77:21         straying [n]         199-8         302:55         191-90-81         302:55         141:19           somewhar [n]         95:20         spend [n]         21:19         81:71.9         112:19         stress [n]         152:11         151:15         stress [n]         152:11         157:15         stress [n]         157:15         stress [n]         152:11         157:15         stress [n]         152:14         150:15         stretchers [n]         66:12         stretchers [n]         66:12         stretchers [n]         66:12         supported [n]         122:13         supported [n]         122:15         supported [n]         127:15         supporten [n		92:18 243:10	start [22] 23:10 25:24	226:13,14	<b>supply</b> [7] 5:23 23:1
somewhat m 95:20 somewhere (s) 70:11 94:10 54:12 108:22 230:21         spont (s) 12:19 240:15 240:15         spont (s) 12:19 240:15         spont (s) 12:19 240:15         spont (s) 12:19 240:15         spont (s) 12:19 240:15         spont (s) 12:19 240:10         spont (s) 12:19 16:32 12:02:10         spont (s) 12:19 16:32 12:02         spont (s) 12:14         spont (s) 12:16		spell [1] 150:16	26:22 30:2 75:15 77:21	straying [1] 199:8	39:25 95:19 130:20 131:9
somewhere is jrol 11         special is jrol 14:24         special jrol 1		<b>spend</b> [1] 21:19		Street [1] 248:5	
Sondey in 248:11         240:15         stressful nr 25:19         stressful nr 25:19         support (p) 9:14 37:10           Sooley mr 248:11         split nr 177:19         spoken pr 248:11         spoken pr 248:12         spoken pr 248:12 <td< th=""><th></th><th><b>spent</b> [3] 142:14 214:16</th><th></th><th>stress [1] 25:21</th><th>1100</th></td<>		<b>spent</b> [3] 142:14 214:16		stress [1] 25:21	1100
230:21         spins (n) 88:4         246:20:23         stretcher (n) 39:18 66:11         supported (n) 227:15           Sooley (n) 248:11         spik (n) 177:9         stretcher (n) 41:15         stretcher (n) 41:15         stretcher (n) 41:15         suppose (n) 127:15           sophistication (n) 85:24         sponson-mounted (n) 14:15         sponson (n) 11:17         stretcher (n) 13:16         stretcher (n) 13:16         suppose (n) 157:4           sorr (n) 48:26 66-9         sponson (n) (n) 14:15         spon (n) (n) 66:6         stretcher (n) 13:16         strike (n) 13:16         suppose (n) 151:12           sound (n) 52:10         spring (n) 96:6         spring (n) 96:6         strete (n) 13:13         structure (n) 18:16         structure (n) 18:16         survey(n) 126:24         survey(n) 126:12         <	somewhere [5] 70:11			<b>stressful</b> [1] 25:19	support [3] 9:14 37:10
Sooley (j) 248:11         split (j) 177:19         start-up (j) 200:1         stretchers (j) 66:12         supported (j) 227:15           soon (j) 90:5 114:24         202:7         spoke (j) 78:22 195:2         202:7         streted (j) 4:16 65:15         strict (j) 24:22 189:6         supposen (j) 42:16           sophistication (j) 80:5 14:424         spoke (j) 78:22 195:2         spoke (j) 78:22 192:1         streted (j) 4:16         strict (j) 24:22 189:6         Supposen (j) 15:1           sophistication (j) 80:5 117: 128:12         spoke (j) 78:22 195:5         strict (j) 18:13         strict (j) 24:22 189:6         Supposen (j) 14:13           sort (j) 31:14 104:5 143:5         spring (j) 96:6         start (j) 71:26:13         start (j) 78:21 14:11         strict (j) 18:32         strict (j) 12:21         stree (j) 12:12         stree (j) 12		<b>spins</b> [1] 88:4			
soon gi 90:5 114:24 119:23 121:23 243:22 90:2364         spoken [1] 19:21 202:7         starteral [11] 4:16 5:15 711:14 75:21 120:10 177:6 19:11 200:2 2268         strict q [11] 5:14:10 strict y [12] 242:2 189:6         supposed [1] 15:14 supposed [1] 15:14           sophisticated [19] 91:12 202364         spoken [1] 19:13 supposed [1] 15:14         spoken [1] 19:13 supposed [1] 15:14         supposed [1] 15:14         supposed [1] 15:14           sophisticated [19] 91:12         spoken [1] 19:13         starters [1] 75:14         starters [1] 75:14         strict [1] 19:23         strict [1] 19:23         strict [1] 19:23           sort [1] 31:13         spray [1] 7:79 15:13.16         starters [1] 75:14         starters [1] 75:14         strict [1] 19:23         strict [1] 19:23         strict [1] 19:23           sound [3] 13:12         spring [1] 96:6         Spake [1] 19:29         state [1] 19:21         strict [1] 19:20         strict [1] 19:20           sound [3] 13:21         Strig [2] 24:31:13         state [1] 15:11         state [1] 15:11         strict [1] 12:21         strict [1] 19:20         strict [1] 12:21         strict [1] 12:	<b>Sooley</b> (1) 248:11	<b>split</b> [1] 177:19			
119:23 121:23 232:22       20:7       71:14 75:21 120:10       172:13       supposed (n 157:4         sophistication (n sophistication	-	<b>spoke</b> [3] 78:22 195:2	-		
91:20 236:4       sponson-mounted [1]         sophistication [1] 85:24       14:16         sorry [7] 4:23 36:0-9       sponsons [1] 11:17         sk:12 116:6 117:7 128:12       spot [2] 93:5 206:7         synt [9] 13:14 104:5 143:5       spring [1] 96:6         sort [4] 31:14 104:5 143:5       spring [1] 96:6         sort [4] 31:14 104:5 143:5       spring [1] 96:6         synt [9] 132:19 243:13       20:12         sound [3] 132:19 243:13       10:12         synt [9] 96:6       state [0] 70:13,14,15,17         synt [9] 92:13 2:10 92:10       state [0] 70:13,14,15,17         synt [9] 92:13 2:10 92:10       state [0] 70:13,14,15,17         synt [9] 92:10 112:12       state [9] 90:10 192:12         synt [9] 92:10 112:12       state [9] 91:12         synt [9] 92:10 112:12       state [9] 91:12         synt [9] 92:20 112:12       state [9] 91:12 <td>119:23 121:23 243:22</td> <td></td> <td></td> <td></td> <td></td>	119:23 121:23 243:22				
91:20 236:4       sponson-mounded [n]       226:15       strike [n] 13:16       suppression [n] 131:3         sophistication [n] 85:24       sponsons [n] 11:17       starters [n] 75:14       stringent [n] 38:9       surface [s] 8:4,7,12         sort [a] 31:14 104:5 143:5       sponson [n] 11:17       sponson [n] 11:17       starters [n] 75:14       stringent [n] 38:9       surface [s] 8:4,7,12         sound [n] 13:12 19 243:13       sponson [n] 13:21       sponson [n] 11:37       starters [n] 70:13,14,151       stringent [n] 38:9       surface [s] 8:4,7,12         sound [n] 13:12 19 243:13       sponson [n] 19:66       start [n] 70:13,14,151.71       starter [n] 70:13,14,151.71       stringen [n] 130:22       strin		1 -		<b>strictly</b> [2] 24:22 189:6	
Sporty (r)         Sponsons (n)         11:17         starting (n)         164:15         stingen (n)         36.9         s					
sorry (r)         sponsons (n)         sponsons (n)         sponsons (n)         starting (n)         fdel:15         starting (n)         fdel:1				stringent [1] 38:9	
88:12 116:6 117:7 128:12       spot [1] 93:5 206:7       starts [1] 178:25       strvey [1] 153:6       strvey [1] 153:6       strvey [1] 126:24 131:24         37:18       spot [1] 93:5 206:7       starts [1] 178:25       strvey [1] 193:2       strvey [1] 153:6       strvey [1] 153:6       strvey [1] 153:6       strvey [1] 153:6       strvey [1] 126:24 131:24         sound [3] 132:19 243:13       102:12       Starts [1] 178:25       startent [4] 152:7,12       strvey [1] 126:12,15       survey [3] 126:12,15         sounds [1] 52:10       72:3 78:21 79:59,11,17       79:24 81:2,11 85:5,9       startes [1] 56:10 79:5       structure [1] 19:128       surveys [3] 126:12,15         space [1] 93:16       95:7 99:18 101:22 108:21       15:33 18:22       struggled [1] 159:18       surveys [3] 126:19 131:15         space [1] 93:16       95:7 99:18 101:22 108:21       15:15:33 18:22       struggling [1] 159:18       strueys [3] 126:19 131:15         space [1] 93:16       95:7 99:18 101:22 108:21       16:01 24:02 24:55       station [7] 65:15 68:45       studies [1] 23:24       sturvey [1] 124:22,23         speak [3] 54:25 74:1       stabilization [1] 93:1       statis [9] 88:18       studies [1] 33:11 9:25 157:17       states [6] 88:9 78:16,20       submit[2] 13:36 216:11       submit[2] 13:36 216:13       swapped [2] 73:12,23         special [6] 41:1,4 77:20       staff [1] 102:9       s			8	strive [1] 37:15	· · · · · · · · · · · · · · · · · · ·
25715       spray (a) 7:7.9 15:13,16       startup (i) 149:3       strong (i) 150:22       131:24         sound (a) 132:19 243:13       super (a) 7:2.9 35:13       i02:12       starte (a) 70:13,14,15,17       strong (ii) 150:22       strong (ii) 120:20       strong (		-			
sound [3] 13:14 104:5143:3       spring [1] 96:6       state [6] 70:13,14,15,17       strongly [1] 237:20       surveying [3] 12:12         sound [3] 13:19 243:13       102:12       state [6] 70:13,14,15,17       strongly [1] 237:20       surveying [3] 12:12       surveying [3] 12:12         sounds [1] 52:10       72:378:2179:5,9,11,17       state [1] 55:13       state [1] 56:1079:5       structure [1] 19:20       structure [1] 19:20       surveyor's [1] 12:12         speak [16] 22:8 27:16       35:7 99:18 101:22 108:21       151:23 154:24 159:91.2       151:23 154:24 159:91.2       struggling [1] 159:18       struggling [1] 159:19       structure [1] 19:18       structure [1] 19:19       structure [1] 159:19       structure [1] 159:19       structure [1] 12:12       structure [1] 159:19       structure [1] 12:12       structure [1] 19:19       structure [1] 19:19       structure [1] 19:19       structure [1] 12:12       structur					
Sound [i] 132:19 243:13       Squadron [2] 35:13       180:20 223:16       structure [i] 128:13       structure [i] 128:13         248:7       Sounds [i] 52:10       79:23 78:21 79:5,9,11,17       states mai [4] 152:7,12       structure [i] 190:20       structuring [i] 12:17         space [i] 93:16       95:7 99:18 10:22 108:21       151:23 154:24 159:9,12       structure [i] 190:20       structuring [i] 159:17       structuring [i] 159:17         104:23 10:19 151:18       1192:47 193:14       200:5,10 201:24 248:5,9       stating [i] 62:15 68:4,5       studig [i] 137:17 144:4       surveys [i] 124:22,23         speak [ii] 42:2       stability [i] 9:2:12 36:17       station [i] 63:15 68:4,5       studig [i] 137:17 144:4       survey [i] 124:22,23         special [i] 41:1,4 77:20       staffing [i] 103:9       statiol [i] 81:21       statiol [i] 81:21       statiol [i] 83:125:16       subsequent [i] 22:12       swaped [i] 7:13,25         special [i] 41:1,4 77:20       staged [i] 65:7 74:23       staged [i] 12:13       stage [i] 12:13       stage [i] 12:13       staged [i] 12:12       stage [i] 12:13       sta	144.00				
248:7       Stateline(14) 152:1/2       structured [n] 190:20       structured [n] 190:20         sounds [n] 52:10       St [si] 25:13 49:10 57:12       results [si] 153:18:22       structured [n] 190:20       structured [n] 190:20         sounds [n] 52:10       79:24 81:2,11 85:59       state [n] 56:10 79:5       structuring [n] 159:18       structuring [n] 159:18       structuring [n] 159:19         speak [n] 02:12       79:24 81:2,11 85:59       115:3 117:17 126:3,21       150:10 240:2 245:5       stating [n] 23:20       struck [n] 184:3       stating [n] 23:20       station [n] 05:19       struck [n] 184:3       struck [n] 184:4       struck [n] 184:4       stru					
sounds [i] 52:10       Stat [j] 25:13 49:10 57:12       states [ii] 56:10 79:5       states [ii] 56:10 79:5       structuring [ii] 12:17       states [ii] 56:10 79:5         space [ii] 93:16       95:7 99:18 101:22 108:21       151:23 154:24 159:9,12       structuring [ii] 159:18       structuring [ii] 159:18       survival [7] 5:24 6:16         speak [ii] 22:1 92:47 193:14       151:23 154:24 159:9,12       151:23 154:24 159:9,12       struggling [ii] 159:19       survival [7] 5:24 6:16         speak [ii] 22:1 92:47 193:14       stability [2i] 95:23 225:9       stability [2i] 95:23 225:9       station [7] 65:15 68:4,5       study [ii] 177:144:4       survivor [2i] 124:22,23         speak [ii] 42:1       staff[ii] 103:9       stations [3] 84:8,8       stations [3] 84:8,8       stations [3] 84:8,8       subject [2i] 158:23 240:23       survivor [2i] 124:22,23       survivor [2i] 124:22,23         spec [ii] 87:3 156:25       staff[ii] [1] 103:9       stations [3] 84:8,8       subject [2i] 158:23 240:23       subject [2i] 158:23 240:23       subject [2i] 158:23 240:23       sweep [1i] 69:15         spec [ii] 87:3 156:25       staff[ii] [1] 103:9       stage [ii] 103:9       state [ii] 141:2       substitute [ii] 23:12       substitute [ii] 23:13:12       substitute [ii] 23:13:12       substitue [ii] 23:13:12       substitue [ii] 23:13:12       substitue [ii] 23:13:12       substitue [ii] 23:13:12       substitie [ii] 23:12       substitue [ii					
source [1] 70:3       79:24 81:2,11 85:5,9       89:24 90:69:69:397:24       struggled [1] 159:18       struggled [1] 159:18         speak [16] 22:8 27:16       15:3 117:17 126:3,21       15:21 92:4,7 193:14       20:5,10 201:24 248:5,9       stating [1] 23:20       studies [1] 23:11       struggled [1] 159:18       struggling [1] 159:19       survival [7] 5:24 6:16         33:7 54:24 89:22 101:21       132:1 192:4,7 193:14       20:5,10 201:24 248:5,9       stating [1] 23:20       stating [1] 23:20       studies [1] 239:14       survival [7] 5:24 6:16       6:25 63:10,14 70:5       238:22         38:7 168:14 183:4       20:5,10 201:24 248:5,9       station [7] 65:15 68:4,5       71:9,11,17 72:19       studies [1] 239:14       survivor [2] 124:22,23       survivor [2] 124:22,23         speaking [1] 42:2       staff [1] 19:25 157:17       staff [1] 19:25 157:17       staff [1] 18:21       stating [1] 103:9       stating [1] 125:12       stating [1] 125:12       submit [2] 133:6 216:11       sweep [1] 69:5       sweep [1] 69:14:14       sweep [1] 69:14:14       sweep [1] 69:14:17       sweep [1] 69:12       sweep [1] 69:12       sweep [1] 69:1					
space [n] 93:16       957 99:18 101:22 108:21 115:3 117:17 126:3,21 132:1 192:47 193:14 200:5,10 201:24 248:59 158:17 168:14 183:4       151:23 154:24 159:9,12 200:5,10 201:24 248:59 stating [n] 23:20 stating [n] 23:24 stating [n] 23:24 stating [n] 23:24 stating [n] 23:24 stating [n] 23:24 stating [n] 23:14 stating [n] 23:24 stating [n] 23:14 stating [n] 174:21 stating [n] 23:14 stating [n] 23:14 stating [n] 23:14 stating [n] 23:14 stating [n] 23:14 stating [n] 174:21 stating [n] 174:21 stating [n] 174:21 stating [n] 174:21 stating [n] 18:21 stating [n] 174:21 stating [n] 174:21 stating [n] 18:21 stating [n] 18:21 stating [n] 18:21 stating [n] 18:21 stating [n] 18:21 stating [n] 18:21 stating [n] 19:21 stating [n] 19:21 stating [n] 19:21 stating [n] 19:21 stating [n] 19:21 stating [n] 19:21 stating [n] 10:39 stating [n] 10:10 stating					
ispeak (i6)       22:8 27:16       115:3 117:17 126:3,21       160:10 240:2 245:5       istug (i)       0.01 0240:2 245:2       istug (i)       0.01 0240:					
13:7: 54:24 89:22 101:21 104:23 110:19 151:18 158:17 168:14 183:4 217:7 232:2 234:25 239:5 speaks [3] 54:25 74:1 240:19       132:1 192:4,7 193:14 200:5,10 201:24 248:5,9 stabilization [1] 93:11 200:5,10 201:24 248:5,9 stabilization [1] 93:11 speaking [1] 42:2 speaks [3] 54:25 74:1 240:19       stating [1] 23:20 station [7] 65:15 68:4,5 71:9,11,17 72:19       stating [1] 23:20 station [7] 65:15 68:4,5 71:9,11,17 72:19       stutils [1] 107:14:4:4 studies [1] 137:17 144:4 subject [2] 158:23 240:23 submerged [2] 7:13,25       supect [2] 8:19 245:24 supect [2] 78:24 240:23         speaks [3] 54:25 74:1 240:19       staffed [1] 42:21 staffed [1] 42:21       staffed [1] 42:21 staffed [1] 42:21       staffed [1] 42:21 staffed [1] 103:9       staffed [1] 42:21 stage [4] 9:1,8 60:24 115:13       staffed [1] 42:21 staffed [1] 103:9       stage [4] 9:1,8 60:24 115:13       stage [2] 65:5 74:23 stage [1] 12:10 16:16,18 stage [3] 12:10 16:16,18 stage [3] 12:10 16:16,18 stand [1] 183:14       stage [3] 3:22,25 174:22 88:19 93:2 166:7 177:15 223:5,18       successful [2] 36:9 151:3 35:8 39:24 40:25 61:12 88:19 93:2 166:7 177:15 223:5,18       stal 166:11 35:8 39:24 40:25 61:12 88:19 93:2 166:7 177:15 223:5,18       stal 166:17,24 24:21 35:8 39:24 40:25 61:12 88:19 93:2 166:7 177:15 223:5,18       stal 166:17,24 24:21 35:8 39:24 40:25 61:12 35:8 39:24 40:25 61:12 88:19 93:2 166:7 177:15 223:5,18       stal 166:17,177:15,71;18:12;12 35:18 146:17,22 147:13 35:6 39:24	-	115:3 117:17 126:3,21			
104:23 110:19 151:18 158:17 168:14 183:4 217:7 232: 234:25 239:5 stabilization [1] 93:11 speaking [1] 42:2 46:5,5,9 52:1 88:13 100:13,13 119:25 157:17 240:19       stabilization [1] 93:11 staff [1] 92:12 36:17 46:5,5,9 52:1 88:13 100:13,13 119:25 157:17 220:21       station [7] 65:15 68:4,5 71:9,11,17 72:19       studies [1] 29:14 248 study [1] 174:21 study [1] 181:21 status [6] 48:9 78:16,20 78:24 185:20 225:10 stage [1] 103:9 stage [1] 103:9 stage [1] 103:9 stage [1] 103:9 stage [1] 121:13 stars [3] 12:10 16:16,18 stakeholders [1] 148:20 stance [2] 153:19 16:17 stars [3] 12:10 16:16,18 stance [2] 153:19 16:17 stance [2] 153:19 16:17 stand [1] 183:14 standard [34] [10:22 61:2 standard [34] [10:22 61:2 standard [34] [10:22 61:2 standard [34] 10:22 61:2 stand			<b>stating</b> [1] 23:20		
138.17 108.14 103.4       5400 E10 010 245:24         217:7 232:2 234:25 239:5       5400 E10 010 19 3:11         speaking [1] 42:2       staff [15] 22:12 36:17         46:5,5,9 52:1 88:13       18:25         100:13,13 119:25 157:17       211:3,5 219:17 227:11         special [6] 41:1,4 77:20       staffing [1] 103:9         special [6] 41:1,4 77:20       stage [4] 9:1,8 60:24         77:25 86:24 99:14       stage [4] 9:1,8 60:24         115:13       stage [4] 9:1,8 60:24         115:13       stage [4] 9:1,16 105:16         40:23 54:19 55:19 72:19       stage [4] 9:1,8 60:24         115:13       stage [4] 9:1,8 60:24         115:13       stage [4] 9:1,16 12:12         specialist [16] 8:14 39:15       stage [2] 65:5 74:23         stage [2] 153:19 161:6,18       stages [1] 121:13         123:13 124:11,16 125:11       stars [3] 12:10 16:16,18         123:13 124:11,16 125:11       starce [2] 153:19 161:7         123:13 124:11,16 125:11       stance [2] 153:19 161:7         124:19 05:20 67:2 68:18       staps [3] 3:22,25 174:22         135:10 47:23 48:16 50:20       standard [34] 10:22 61:2         135:10 47:23 48:16 50:20       standard [34] 10:22 61:2         135:10 57:20 67:2 68:18       stipulate [2] 61:18       suggest [2] 234:15,17	104:23 110:19 151:18		station [7] 65:15 68:4,5		<b>survivor</b> [2] 124:22,23
speaking [1] 42:2       staff [15] 22:12 36:17       staff [15] 22:12 36:17       subject [2] 158:23 240:23       swap [1] 71:7         speaks [3] 54:25 74:1       46:5,59 52:1 88:13       118:25       subject [2] 158:23 240:23       swapped [2] 7:13,25         spec [3] 87:3 156:25       211:3,5 219:17 227:11       staffed [1] 42:21       staffing [1] 103:9       staffing [1] 103:9       staffing [1] 103:9       stage [4] 9:1,8 60:24       stage [1] 125:12       stage [1] 125:12       stage [1] 121:13       stage [1] 121:13       stage [1] 121:13       stage [1] 121:13       stage [2] 65:5 74:23       stage [3] 121:10 16:16,18       staff [3] 2:22,5 159:6       succeesful [2] 36:9 151:3       37:1,8 68:2,2 72:21 77:2         specialists [19] 34:17       stakeholders [1] 148:20       stage [3] 12:10 16:16,18       stepping [1] 191:8       steps [3] 3:22,25 174:22       steps [3] 3:22,25 174:22 <t< td=""><td>100111 10011 10011</td><td></td><td></td><td>-</td><td>suspect [2] 8:19 245:24</td></t<>	100111 10011 10011			-	suspect [2] 8:19 245:24
speaks (a) 54:25 74:1 240:19       add:5,59 52:1 88:13 100:13,13 119:25 157:17 211:3,5 219:17 227:11       Status (a) 48:9 78:16,20 78:24 185:20 225:10       submerged (z) 7:13,25 submit (z) 133:6 216:11 submitted (i) 22:8 subsequent (a) 27:25 28:10 29:15,21 32:3 184:19       swapped (z) 73:12,13 sweep (i) 69:5         special (a) 41:1,4 77:20 77:25 86:24 99:14       stage (a) 9:1,8 60:24 115:13       stage (a) 9:1,4 8:1       stage (a) 9:1,4 8:1       stage (a) 9:1,4 8:1         yeight (b) 8:14 yits (a) 12:12       stage (a) 9:1,5 10:16       stage (b) 12:13       stage (c) 65:5 74:23       step (b) 26:15 108:16       substitute (a) 32:4       system (a) 7:4,13 80:18,19 90:14         yeight (c) 12:2:12       stage (c) 15:13;13 12:10 16:16,18       step (b) 26:15 108:16       successful (a) 3:5: 14:24 34:21       7:4,13 80:18,19 90:14         yeight (a) 12:2:2 for 7:2:2       standard (b) 18:14       step (c) 15:13;13:12:10       step (c) 15:13;13:2:16:15       13:12:10       145:15 172:15 200:16       38:19 93:2 166:7 177:15       23:5;18       147:16,22,24 148:9,11         yeight (a) 7:2:2 63:2:3,24 48:16 50:20       standard (b) 19:18 <td></td> <td></td> <td></td> <td></td> <td>swap [1] 71:7</td>					swap [1] 71:7
speaks [3] 54:25 74:1       40:3,3,9 :52:1 88:1 35:157:17       Statol [1] 81:21       submit get [2] 7:15,25       sweep [1] 69:5         20:19       100:13,13 119:25 157:17       211:3,5 219:17 227:11       staffed [1] 42:21       staffing [1] 103:9       staffing [1] 103:9       staffing [1] 103:9       stage [4] 9:1,8 60:24       stage [1] 125:12       stage [1] 125:12       stage [1] 125:12       stage [1] 125:12       stage [1] 121:13       stages [1] 1					swapped [2] 73:12,13
240.19       211:3,5 219:17 227:11       status [6] 48:9 78:16,20       submitt [2] 133.0 210.11       swimmer [5] 39:6         20:21       211:3,5 219:17 227:11       staffing [1] 103:9       staffing [1] 103:9       staffing [1] 103:9       staffing [1] 103:9       stage [4] 9:1,8 60:24       stage [4] 9:1,8 60:24       174:15 191:3       subsequent [6] 27:25       28:10 29:15,21 32:3       system [104] 7:14 8:1         specialist [16] 8:14 39:15       stage [2] 65:5 74:23       stage [2] 26:15 108:16       134:6 137:19 156:17       successful [2] 36:9 151:3       38:7,8,11 39:11 66:11         125:24 231:20       stairs [3] 12:10 16:16,18       stepping [1] 191:8       stepping [1] 191:8       steps [3] 3:22,25 174:22       35:8 39:24 40:25 61:12       38:7,8,11 39:11 66:11         35:6 36:17,18,24 39:3,4       standard [34] 10:22 61:2       still [7] 58:1 135:16 150:9       suffer [1] 8:8       suffer [1] 8:11 151:13,13,19       156:6,7,9,13,14,20,22         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18<					
specialist       istaffed [i] 42:21       staffed [i] 42:21       staffig [i] 103:9       staffig [i] 103:9       staffig [i] 103:9       staffig [i] 103:9       stage [i] 121:13       stage [i] 125:12       subsequent [i] 222:8       subsequent [i] 22:12       subsequent [i] 22:12 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
special [6]       staffing [1]       103:9       stage [4]       91:18       Stage [4]       91:12:13       Stage [1]       121:13       Staffing [1]       191:6:17       Succeesful [2]       36:9       135:5       14:24       36:8       91:11       66:11         123:13       124:11,16       125:11       124:11       148:20       Stepping [1]       191:8       Steps [3]       322:2,25       177:4,13       80:18,19					
special [6] 41:1,4 77:20       stage [4] 9:1,8 60:24       stage [1] 125:12       stage [1] 125:12       stage [1] 125:12       system [104] 7:14 8:1         specialist [16] 8:14 39:15       40:23 54:19 55:19 72:19       stages [1] 121:13       stars [3] 12:10 16:16,18       stages [1] 121:13       stages [1] 121:14       stages [1] 121:14       stages [1] 121:	220.21				syllabused [1] 59:24
77:25 86:24 99:14       115:13       staged [2] 65:5 74:23       steel [1] 141:2       substitute [1] 32:4       29:7 30:8 35:11 37:6         40:23 54:19 55:19 72:19       94:9,15 100:11 123:12       stages [1] 121:13       10:5 22:18 26:11,17 29:4       29:7 30:8 35:11 37:6       38:7,8,11 39:11 66:11         123:13 124:11,16 125:11       stages [1] 121:13       stages [1] 121:13       stages [1] 121:13       157:25,25 159:6       successful [2] 36:9 151:3       67:1,8 68:2,2 72:21 77:2         specialists [37] 34:17       stance [2] 153:19 161:7       stepping [1] 191:8       steps [3] 3:22,25 174:22       steps [3] 3:22,25 174:22       steps [3] 3:22,25 174:22       35:8 39:24 40:25 61:12       95:9 137:25 138:21 144:11         35:6 36:17,18,24 39:3,4       standard [34] 10:22 61:2       156:15 172:15 200:16       still [7] 58:1 135:16 150:9       still [7] 58:1 135:16 150:9       sufficiently [1] 18:8       sufficiently [1] 169:19       154:11 155:13,13,19         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18					system [104] 7:14 8:1
specialist [16] 8:14 39:15       staged [2] 65:5 74:23       step [8] 26:15 108:16       38:7,8,11 39:11 66:11         40:23 54:19 55:19 72:19       stages [1] 121:13       step [8] 26:15 108:16       38:7,8,11 39:11 66:11         94:9,15 100:11 123:12       stairs [3] 12:10 16:16,18       134:6 137:19 156:17       successful [2] 36:9 151:3       67:1,8 68:2, 2 72:21 77:2         125:24 231:20       stakeholders [1] 148:20       stepping [1] 191:8       steps [3] 3:22,25 174:22       95:9 137:25 138:2 144:11         35:6 36:17,18,24 39:3,4       stander [2] 153:19 161:7       steps [3] 3:22,25 174:22       88:19 93:2 166:7 177:15       145:18 146:17,22 147:13         35:6 36:17,18,24 39:3,4       standard [34] 10:22 61:2       156:15 172:15 200:16       suffer [1] 8:8       148:11 151:13,19 153:16         52:24,25 53:2,5,24 54:13       61:3,19 65:20 67:2 68:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18				substitute [1] 32:4	
40:23 54:19 55:19 72:19       stages [1] 121:13       134:6 137:19 156:17         94:9,15 100:11 123:12       134:10 16:16,18       134:6 137:19 156:17         123:13 124:11,16 125:11       stakeholders [1] 148:20       stepping [1] 191:8         specialists [37] 34:17       stance [2] 153:19 161:7       stepping [1] 191:8         35:6 36:17,18,24 39:3,4       standard [34] 10:22 61:2       still [7] 58:1 135:16 150:9         52:24,25 53:2,5,24 54:13       61:3,19 65:20 67:2 68:18       156:15 172:15 200:16         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18		staged [2] 65:5 74:23			
94:9,15 100:11 123:12       stairs [3] 12:10 16:16,18       157:25,25 159:6       such [13] 5:5 14:24 34:21       77:4,13 80:18,19 90:14         125:24 231:20       stakeholders [1] 148:20       stepping [1] 191:8       stepping [1] 191:8       35:8 39:24 40:25 61:12       95:9 137:25 138:2 144:11         125:24 231:20       stance [2] 153:19 161:7       stepping [1] 191:8       stepping [1] 191:8       145:18 146:17,22 147:13         35:6 36:17,18,24 39:3,4       stand [1] 183:14       steps [3] 3:22,25 174:22       88:19 93:2 166:7 177:15       145:18 146:17,22 147:13         52:24,25 53:2,5,24 54:13       51:3,19 65:20 67:2 68:18       156:15 172:15 200:16       suffer [1] 8:8       sufficiently [1] 169:19       156:6,7,9,13,14,20,22         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18	40:23 54:19 55:19 72:19	stages [1] 121:13			
125.13       124.11,10       125.11       stakeholders [1]       148:20       stepping [1]       191:8       35:8       39:24       40:25       61:12       95:9       137:25       138:2       144:11         125:24       231:20       stakeholders [2]       153:19       161:7       stepping [1]       191:8       35:8       39:24       40:25       61:12       95:9       137:25       138:2       144:11         125:24       231:10       stand [1]       183:14       stepping [1]       55:11       56:15       172:15       200:16       231:10       145:11       145:13,19       153:16       154:11       155:13,13,19       156:6,7,9,13,14,20,22       156:6,7,9,13,14,20,22       156:6,7,9,13,14,20,22       160:2,2       160:2,2       161:1,1,2,18		stairs [3] 12:10 16:16,18			
specialists [37] 34:17       stance [2] 153:19 161:7       steps [3] 3:22,25 174:22       88:19 93:2 166:7177:15       145:16 120:17,224 142:9,11         35:6 36:17,18,24 39:3,4       stand [1] 183:14       still [7] 58:1 135:16 150:9       223:5,18       147:16,22,24 142:9,11         45:10 47:23 48:16 50:20       standard [34] 10:22 61:2       156:15 172:15 200:16       suffer [1] 8:8       154:11 155:13,13,19         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18		<b>stakeholders</b> [1] 148:20	<b>stepping</b> [1] 191:8		95:9 137:25 138:2 144:11
35:6 36:17,18,24 39:3,4       stand [1] 183:14       still [7] 58:1 135:16 150:9       225:3,10       148:11 151:13,19 153:16         45:10 47:23 48:16 50:20       standard [34] 10:22 61:2       156:15 172:15 200:16       suffer [1] 8:8       154:11 155:13,13,19         52:24,25 53:2,5,24 54:13       61:3,19 65:20 67:2 68:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18		stance [2] 153:19 161:7	<b>steps</b> [3] 3:22,25 174:22		
45:10 47:23 48:16 50:20       standard [34] 10:22 61:2       156:15 172:15 200:16       154:11 155:13,13,19         52:24,25 53:2,5,24 54:13       61:3,19 65:20 67:2 68:18       231:10       sufficiently [1] 169:19       156:6,7,9,13,14,20,22         55:11 56:14 60:23 63:18       71:7 73:5,7,11 80:23       stipulate [2] 61:18       suggest [2] 234:15,17       160:2,2 161:11,12,18		stand [1] 183:14	still [7] 58:1 135:16 150:9	· ·	
52:24,25         53:2,5,24         54:13         61:3,19         65:20         67:2         68:18         231:10         sufficiently         11         169:19         156:6,7,9,13,14,20,22           55:11         56:14         60:23         63:18         71:7         73:5,7,11         80:23         stipulate         [2]         61:18         156:6,7,9,13,14,20,22         160:2,2         161:11,12,18	45:10 47:23 48:16 50:20	standard [34] 10:22 61:2			
	52:24,25 53:2,5,24 54:13	61:3,19 65:20 67:2 68:18			
				00	
63:22 66:19 88:12 103:15 91:14,14,22 127:10,11 130:22 121:7 122:21,22,25 124:6 127:17 129:16 130:4 <b>stipulated</b> [21 130:11 67:23 170:13 171:3 177:1,5,5					
121:7         122:21,22,25         124:6         127:17         129:16         130:4         stipulated [2]         130:11         6:20,23         9:7,11         67:23         170:13         171:13         177:15,5           124:8         125:5         167:19         135:16         142:6         164:9,19         237:23         70:5,11         138:19,19,23         177:16         178:11         179:5,18					
179:23 211:7 216:23 221:17 227:5 230:18 stinulates (1) 212:16 139:3.24 140:11.13.15 180:5.22 181:5 182:20					
227:17 236:25 238:9,12,16 <b>Steplates</b> [1] 212:10 142:23 143:4,9 232:12 185:10 16 18 10 187.8				142:23 143:4,9 232:12	
<b>Specialized</b> [8] 30:21 241.22 243.9 240.9				suitable [1] 78:8	
			-	Suite [1] 248:5	198:9,11 210:11,14 223:7
stoppstart [1] 104.15 specific [7] 3:17 75:3 standardize [1] 236:9 stopped [1] 14:20 suited [1] 62:8 223:8,18 225:4 229:17			-	suited [1] 62:8	223:8,18 225:4 229:17
77:5 95:13 133:21 140:3 standardized (2) 71:5 store (2) 6:10 175:22 suffs [10] 5:20,24 6:12 259:11,25 240:1,5 245:7	1 =				
238:23 140:22 138:16,17 139:18 140:1 <b>systems</b> [12] 93:11 96:18					systems [12] 93:11 96:18
specifically [3] 20:22 standards [24] 3:8 6:1 stowed [1] 5:16 100:12 140:23 148:18 165:0 102:12					
<b>33:10 103:3</b> <b>37:15,16 60:9,10 127:5</b> <b>stowed</b> [1] 5:16 <b>stowed</b> [1] 5:16 <b>stowed</b> [1] 5:16 <b>stowed</b> [1] 5:16 <b>stowed</b> [1] 5:16	33:10 103:3				
<b>[specifics</b> [3] 20:13,25   127:6,6 130:11 135:11   122:17,17   00:21   239:8	<b>specifics</b> [3] 20:13,25				
25:1 $142:4 151:7 164:4,7,11$ stron (2) 12:14 220:15 $104:17 19 20:24.16 19$					
<b>Specked</b> [2] 229:4,19 [225:16 229:19 10] strong of 19:0 Support 126:17 -T-					-T-
specking [1] 230:8 strong by 20:6 42:14 strong by 25:16 17 Super [1] 10:17 to by 25:16 17					
<b>specs</b> [1] 154:13 <b>standby</b> [5] 39:0 42:14 <b>straps</b> [5] 7:5 12:10,17 <b>super</b> [1] 244:4 <b>tab</b> [16] 15:5 111:22,22 112:6,15 113:7,21,23	<b>specs</b> [1] 154:13			~	

Discoveries Unlimited Inc., Ph: (709)437-5028

Multi-Page<sup>TM</sup>

#### tabbed - turning Offshore Helicopter Safety Inquiry

<b>v</b> ,		C	<b>Offshore Heli</b>	copter Safety Inquiry
114:6,8 116:9,20 117:6	ten-day [1] 224:21	205:5 209:24 214:11,11	toggles [1] 14:25	transition [4] 92:23
117:9,24 118:1	tent [1] 50:10	222:19 224:5,11 227:5	toll [1] 82:19	93:19,23 229:22
tabbed [1] 114:17	term [3] 28:6 152:16,17	228:6 229:15 230:2,10 239:25 240:12 241:19	tomorrow [1] 246:24	transitioning [1] 95:12
tabbing [1] 114:11	terms [3] 180:7,9 204:1	246:16	tongue [2] 9:25 103:24	transmitter [1] 11:4
<b>table</b> [4] 161:23 162:4,8 162:25	<b>Terra</b> [1] 132:5	three-phase [1] 226:18	too [12] 44:6 48:2 77:2	transport [49] 3:14 5:25 24:22 25:4 38:9 60:8,10
tables [1] 65:5	<b>Territories</b> [5] 67:4	through [71] 9:20 10:8	80:16 104:2 159:10 187:6 194:23 195:22 206:2	60:11 61:5 90:4 91:9
tabletop [3] 115:25	68:16 74:20 82:7 200:18	20:6 22:18 35:9 39:10	207:8 235:21	97:3,11 98:2,4 99:1,11
118:11,13	<b>test</b> [6] 8:16 23:15,16 29:15 211:16 213:8	54:11 55:25 56:8 57:15 58:1 62:9 75:22 76:6	took [15] 103:4 119:21	117:16 127:14 147:7,19
tabs [6] 112:13,23,24,24	tested [6] 111:12 116:3	87:10 104:6 108:1 110:2	159:5 214:4,7 216:21	154:13 157:1 170:17 195:19,21 196:5,7 201:17
113:2,5	130:21,22 212:17 219:13	110:12 111:4 113:19	217:3,8 218:18 219:7,9 219:16 222:18 230:8,11	202:8,11 203:7,13 218:9
tail [3] 11:22 12:8 16:15	testing [6] 96:13,22	116:2 118:9 119:20 120:8 126:1 133:4,12,15 136:7	<b>tool</b> [1] 157:21	218:14 219:7,18 221:21
tailor [2] 157:15 163:19	167:24 210:12,16,19	137:18 138:13 142:20	top [10] 72:18 89:4 97:18	221:23 222:8,12 236:6 237:22 238:12,16,17
tailored [1] 167:7	text [1] 234:1	144:21 149:1,3 151:25	151:23 152:13,24 182:16	240:4,6 245:25
<b>takes</b> [9] 4:14 20:18 72:14,21 74:21 104:19	<b>thank</b> [33] 2:7,13 4:13 19:15 23:24 38:14 52:8	152:9 154:22 156:6 157:20 158:1 159:11	196:20 227:1,12	transportation [4] 4:19
104:20,21 232:20	59:14 60:7 71:22 78:18	161:15 162:17 164:23	topic [3] 145:19 176:23	126:7 201:17 234:19
taking [4] 105:10 124:25	104:25 114:8 122:20	168:8 171:10 172:1,25	235:15	<b>transported</b> [4] 5:9 23:24 24:3 130:19
177:6 206:6	126:1 128:12,21 136:10 137:23 145:13 146:12,15	173:18 174:22 177:8 179:6 180:19 184:13	topics [1] 215:5 topnotch [1] 56:4	<b>transporter</b> [1] 48:12
tandem [1] 242:21	157.25 145.15 140.12,15	187:10 192:18,20 195:7	total [5] 147:17 148:4	transporting [2] 131:18
tangible [1] 175:2	176:17 210:4 219:22	197:22 198:19 201:16	205:9 222:18 223:3	236:6
<b>tank</b> [9] 22:14,15 219:23 220:10,20 221:13,15	234:6 235:15 240:10,13 246:15	208:15 212:16 223:9	totally [2] 7:13,24	travel [6] 3:1 4:22 26:8
222:10,20 221:13,13	<b>thanks</b> [1] 246:19	226:20 227:14 228:19 229:1 232:22	touched [2] 168:14 179:2	166:17 179:2 243:11
tanks [10] 66:15 130:16	that'll [1] 57:3	throughout [10] 16:19	tough [2] 172:14 188:21	travelling [2] 5:12 179:3
130:17,18,19 220:5,15	theatre [1] 27:19	68:6 148:5 168:10 177:9	tougher [1] 70:16	tray [1] 40:17
241:14 243:18,24	themselves [4] 14:1	195:11 196:10 211:15	tow [1] 176:10	treatment [3] 8:14 107:22 193:24
Tara [1] 248:5	51:15 70:19 159:16	220:23 223:5 throwing [1] 92:24	toward [3] 15:4 227:9	treats [1] 236:2
<b>target</b> [6] 37:1 70:13 90:1 93:6,24,25	there'd [1] 213:1	thumbs [1] 23:7	244:17	trend [4] 158:25 177:22
task [4] 18:22 95:13,23	therefore [4] 5:7 95:24	tidy [1] 177:21	towards [1] 86:8 towed [2] 80:14 88:7	178:1 230:17
150:15	121:17 224:8	tighten [3] 13:3,6 16:21	towing [3] 74:24 169:8	trending [1] 167:9
taskable [2] 35:4,9	<b>thermal</b> [7] 6:2 67:19 142:22 143:10,18,22	tightly [1] 146:18	176:4	trends [1] 237:12
tasked [2] 124:9 244:10	144:9	tilt [1] 242:25	town [3] 106:1 196:13	tried [2] 214:18 245:8
taught [1] 14:4	they've [17] 32:11 51:9	time/night [1] 42:7	202:2	trigger [1] 141:20
taxiing [1] 120:17	56:7 89:7 91:15,19 98:8 103:11 105:20 153:13	timed [1] 119:10	<b>TP</b> <sub>[1]</sub> 127:13	trip [1] 236:23
team [38] 20:17 34:20 40:21 56:4,5 57:1,2,11	157:24 159:22 224:13	timeframe [3] 208:12	tracking [2] 90:4,5	<b>trips</b> [3] 39:9 103:18 206:1
57:20 59:25 100:6 103:4	235:5,6,7 245:3	208:18 224:19 timelines [1] 178:3	<b>traffic</b> [7] 26:20 43:7,8 88:23 89:1 115:15 211:3	true [2] 153:3 248:3
117:8,10,22 120:9 125:21	thinking [5] 150:19	timely [4] 28:6 52:17	train [11] 22:12 23:1	truly [4] 36:19 153:15
125:21 127:1 153:10 161:1 166:20 167:18	153:18 211:9 244:16,22	149:19 179:16	54:12 55:2 59:17 95:14	156:1 163:15
168:25 198:3 205:21	thinks [1] 155:22	times [20] 4:6 12:8,22	127:4 236:14,17 238:3,7	<b>try</b> [5] 10:6 37:19 71:6
208:8 214:1 215:20	<b>third</b> [10] 84:15 123:11 145:21 146:8 149:6 164:7	16:8,15 27:5,22 28:9	<b>trained</b> [7] 19:22 36:18 55:17 59:12 94:25 122:12	165:10 206:7
216:24,25 217:8 220:23 222:6,6 223:20,22 232:21	164:8,19 170:11 205:4	36:11 74:17 75:24 82:16 106:16 115:25 118:10	123:13	<b>trying</b> [8] 14:7 30:15 33:20 59:10 115:20
teams [3] 128:6 166:15	thought [7] 91:15 140:6	149:11 153:18 196:20	training [55] 19:21 37:9	133:23 153:9 191:3
208:11	145:11 151:21 183:2 194:23 235:21	215:20 244:17	37:12,17,19,23 38:10	tube [1] 15:6
technical [2] 146:25	thoughts [1] 143:17	timing [1] 46:16	52:25 53:16 56:8,11,13 57:21 58:2,8,10,11,14	tubes [1] 12:8
223:23	threat [5] 178:9,12 180:9	<b>title</b> [1] 168:14	58:15,17,17,18,18,20	tuck [1] 6:9
<b>technicians</b> [4] 52:5 63:22 66:18 88:11	181:10 182:2	<b>titled</b> [1] 111:23	59:6,10,14,15,16,21,22	tucked [1] 143:5
technology [7] 70:25	threatening [4] 8:13	<b>today</b> [3] 34:25 218:11 233:25	59:24 60:1,25 111:10 127:7 142:12 157:11,12	tug [2] 74:24 176:10
93:10,23 95:12 221:18	108:16,20 109:20	together [42] 57:1 62:20	159:12 169:5 170:2,3	<b>Tuktoyaktuk</b> [2] 82:6 83:14
235:6 243:2	<b>three</b> [67] 10:18,24 11:19 13:19 31:22 32:2 39:4	88:14 90:5 110:6 120:10	219:19 225:22 226:22	<b>tune</b> [1] 94:16
techs [1] 45:10	40:3 57:12 59:23 62:15	125:16 133:8,13 145:7	228:18 236:9,12,19 237:21,22 238:22 239:1	turn [9] 12:18 25:12,20
teeth [2] 9:16,18	66:9,12 68:25 69:3,23	155:21 156:1,19 157:5 163:20 166:15,19,21	239:1	26:1,5,11 103:11 117:9
<b>tells</b> [2] 150:25 172:4	69:24 70:1,12,18 75:16 76:6 82:11,19,21 85:15	168:25 169:12 173:24	transcribed [1] 248:6	149:5
<b>temperature</b> [6] 67:16 67:18 69:10,14 143:11	86:6 87:1 89:10 90:15	188:6,8,10 196:15 206:3	transcript [1] 248:3	<b>turnaround</b> [7] 26:13 29:3,23 30:2,10,25 31:3
143:13	90:17 104:6 105:3 115:15	208:9 209:25 211:14 214:1 216:6 218:8,18	transfer [1] 108:10	<b>turnarounds</b> [1] 25:25
temperatures [1]	115:25 118:10 122:4,18 122:25 123:1 124:5,8,12	219:7 220:6,22 223:21	transferred [2] 108:21	turned [8] 15:24 17:3
244:24	138:8 161:6 180:2 181:17	226:13 228:16 233:22 239:13 240:4	137:15 transferring [1] 177:7	27:17,21 28:3,10,17 29:9
ten [3] 5:10 10:24 75:19	196:16 202:22 203:16,24	togethers [1] 206:11	transfers [1] 106:21	turning [4] 26:18,21
		<b>USUNUIS</b> [1] 200.11	<b>Hanster 5</b> [1] 100.21	

## Discoveries Unlimited Inc., Ph: (709)437-5028

## Multi-Page<sup>TM</sup>

#### turns - worker Offshore Helicopter Safety Inquiry

		C	<b>Offshore Heli</b>	copter Safety Inquiry
27:7,8	136:5 145:20 151:14	171:25 179:1 187:25	<b>VIH</b> [3] 152:2,6 220:22	wheels [7] 39:1 47:4
turns [2] 36:14 103:24	153:9 154:15,19 162:6	196:14 206:6 219:9 222:5	virtually [1] 65:7	73:16 75:7,16 84:21
<b>TV</b> [1] 68:5	168:8 195:17 199:3 207:9	229:8	<b>visible</b> [1] 8:25	87:11
<b>TVs</b> [1] 80:12	217:21 219:24 220:2	<b>user</b> [1] 7:21	vision [3] 63:20 66:23	wherever [2] 80:5
twenty [1] 76:12	221:20 226:6	uses [2] 61:23 93:10	70:24	149:23
	understandably [1]	using [14] 9:13 15:5,16	visual [6] 8:15 22:20	whichever [1] 62:7
<b>Twenty-five</b> [1] 205:12	243:6	31:18 68:9,13 69:17 71:2	23:16,18 68:8 92:22	whistle [2] 6:25 15:12
<b>twice</b> [5] 203:11 236:12 236:12,14,15	understands [1] 199:3	90:14,17 105:10 107:10	visually [1] 23:14	White [1] 244:4
<b>two</b> [55] 9:10 10:19 11:8	understood [1] 157:7	150:4 226:13	vital [1] 55:22	whole [9] 57:9 62:19 88:4
11:15 24:13,15 29:20	<b>underwater</b> [5] 6:21 7:10,15 9:5,20	usually [2] 27:18 205:21	vitally [2] 10:9 14:2	120:14 160:5 170:4 187:8
31:22 32:2 70:12,18,18	<b>underwear</b> [1] 144:3	utilize [2] 169:4,15	<b>volume</b> [3] 8:9 235:7	215:7 225:23
72:14 82:10,13 84:7 85:4	unduly [1] 152:5	utilized [1] 196:13	236:7	wick [1] 144:5
85:4 88:22 104:4 111:23	unfair [1] 204:24			wicks [1] 144:1
115:25 118:10 124:18 138:7 143:6 173:5 174:13		-V-	-W-	wide [3] 36:2 150:6 204:3
177:20 179:25 180:11	unfamiliar [1] 142:3	<b>V-22</b> [1] 242:25	waist [2] 12:14,16	Williams [68] 2:11,15
182:14 187:16 188:2,3,5	unheard [1] 56:3	validate [1] 122:9	wait [5] 50:8 91:8 98:25	2:20,23 17:14,20 18:5 18:11,19 19:6 20:2 21:6
188:23 189:7 197:1,5	<b>unique</b> [3] 35:6 40:2 63:7	validated [2] 116:3	128:16 231:10	21:13,24 24:6,20 25:5
199:11 203:24 205:16 206:14 218:19,24 220:5	<b>unit</b> [8] 10:4,4,11 11:6 57:9 74:24 76:2 103:14	117:15	waiting [4] 32:2 57:5	25:23 31:2,10,16 32:1
228:19 231:25 239:6,14	<b>United</b> [6] 96:3 97:24	validating [1] 219:15	150:23 159:15	32:16,21 33:3,14,24 34:6
241:13 243:18,24 246:17	159:9 160:9 240:2 245:5	valuable [1] 108:2	walk [3] 16:1,12 157:20	102:16 104:23,25 105:1 105:12,17 106:25 107:5
two-week [1] 208:10	units [2] 56:10 71:6	valued [1] 152:21	walking [4] 5:20 12:6	107:13,23 108:8,14 109:6
<b>type</b> [17] 8:12 12:13 26:6	<b>unless</b> [3] 93:3 105:13	valve [6] 8:23 9:9,12,15	16:8,18	109:11 110:9,15 112:12
43:20 61:13 99:17 104:13	137:24	9:22,25	wants [2] 162:15 178:10	116:10,21 119:5,13
107:9 109:4 110:20	Unlimited [2] 248:12,14	variables [1] 176:1	warranted [1] 155:9	120:16 131:20 132:2,7
131:23 143:24 171:8 173:9 176:5 236:20	<b>unload</b> [1] 20:16	variance [2] 150:6	wasting [1] 108:2	132:11,25 133:17 134:13 134:19 135:12,17 136:1
238:24	unmanageable [1] 93:8	169:10	watch [2] 4:10 6:4	136:21 137:6 145:20
types [2] 29:21 34:13	<b>unofficial</b> [1] 103:22	varies [2] 21:18 203:24	watches [1] 6:10	146:4 232:2,10 233:17
typically [4] 40:12 53:21	<b>unsafe</b> [1] 149:24	<b>various</b> [7] 6:3 54:13 64:19 93:11 103:5 146:19	watching [3] 4:5,8 153:2	willing [2] 35:21 153:19
103:12 105:18	unstable [1] 92:21	157:17	water [43] 9:21,23 11:7	winch [4] 39:14 41:6
	<b>up</b> [104] 1:20 3:16 16:2	<b>vary</b> [3] 8:1 21:14 95:10	11:23 13:12 14:11,13,24	72:6 73:17
-U-	20:10 23:7 25:8 39:1,19	<b>vehicle</b> [1] 157:11	15:2,9 22:22 23:17 37:11	wind [4] 77:16,19 94:3,4
<b>Uh-hm</b> [7] 41:9 47:21	40:18 44:2,21 47:4 50:13	<b>velcro</b> [1] 9:12	37:22 39:16 40:18 58:17 63:5,13 67:17,23,24	window [2] 11:1 13:15
83:5 85:13 87:15 221:25	51:8 55:10,24 56:15	<b>venue</b> [1] 183:23	70:19 77:5,7 82:23 83:1	windows [3] 10:24 13:13
246:10	58:21 59:1 63:2 67:24 69:12,14 70:3,17 73:16	verify [1] 8:23	83:7 93:2,6 95:17 96:17	239:2
UK [6] 90:16 127:8	75:7,15 76:21 77:2,11	verses [1] 224:1	96:18 118:20 122:2,12	wing [10] 4:7 105:22
129:25 235:5 238:10,15	77:21 80:15 84:21 87:7		122:15 124:20 125:10,17	141:25 142:1 158:12,15
ultimate [1] 95:1	87:11 102:1,7 106:7	<b>versus</b> [4] 99:25 130:8 236:3 242:2	143:12 225:8,11 water-activated [1]	235:25 236:3,21 245:10
<b>Um-hm</b> [1] 237:10	110:5 111:20 115:17	vertical [1] 93:20	6:25	wire [1] 13:20
umbrella [3] 109:12	122:7,17 123:17 124:22 125:9 126:16 138:18,20	vertically [1] 243:1	waterproof [1] 143:20	wise [1] 246:23
146:21 195:21	142:20 150:6,12 153:11	<b>vessel</b> [7] 37:22 39:17,25	wavelength [1] 68:9	within [34] 5:9 30:11 31:21,22 37:13 39:1
unable [1] 9:22	154:10 157:9 158:23	58:18,24 95:20 134:25	wavelengen [1] 08.9 wealth [1] 37:3	42:10 45:18 47:24 70:18
unacceptable [2] 171:15	159:6,9,13 162:16 163:5	vessels [4] 37:10 95:19	weapons [1] 5:3	73:16 75:19 85:10 97:4
172:7	164:15 166:9,16 170:11 172:7,12 173:10 174:9	127:19 130:20	weapons [1] 5:5 wear [2] 16:19 142:19	143:6 146:18 147:18
unanimously [1] 226:21	174:16 175:10,13,15,18	vested [1] 130:24	wearing [1] 143:3	148:9 150:14 155:15,17 157:15 163:22 164:12
<b>under</b> [27] 11:22 14:11 14:13 24:22 29:4 88:24	175:19 178:18,25 181:17	<b>veteran</b> [1] 54:22	weather [11] 26:2,2	167:19 174:23 179:17
99:10,13 105:4 109:4,12	182:4,13,16 185:5,17	vetted [1] 137:18	35:18 76:9,12 77:15,25	185:4 187:13 189:3 191:3
121:24 142:19,23 143:3	191:7,11 194:23 197:22	via [3] 26:16 27:11 28:2	78:8 131:3 134:23 244:9	198:6 217:5 224:4
146:21 158:16,18 159:7	197:23 201:23,23,24,25 204:14 205:25 206:9	video [49] 2:13,16,18,21	website [1] 177:9	without [6] 33:22 142:22
164:2,24 184:3 195:21	209:17 211:14,23 213:20	2:24,25 3:3,3,6,15,20,21	week [2] 134:12 208:10	153:15 191:7 235:10,11
210:10 232:20 233:15 238:17	215:6 219:3 224:20 242:3	4:3,6,9,10,14,16,20 6:5	weekend [1] 240:16	witness [1] 221:21
undergarment [1]	update [1] 27:17	17:6,8,10,25 18:8 19:7 34:10,11,15,16 38:12,18	weeks [4] 143:7 179:2	wondered [1] 244:18
143:25	updated [2] 115:20	39:21 53:1,12 104:8	215:16 245:20	<b>wonderful</b> [1] 245:6
undergarments [1]	117:16	138:1,4 146:14,16 151:10	weigh [1] 93:25	word [1] 46:7
143:22	upgrading [1] 116:8	155:10 158:7 186:10	weights [1] 61:13	words [9] 29:8 85:2
underlying [1] 149:15	upper [1] 13:17	195:3 232:15 233:12,13	welcome [2] 162:16	88:25 103:1 139:18 147:3
undersigned [1] 248:2	ups [1] 88:19	234:1	208:16	186:9 214:6 233:20
understand [34] 17:1	usage [2] 232:1,7	<b>view</b> [12] 3:15 12:5 16:14 23:22 57:10,18 97:18	well-lit [1] 38:4	<b>worked</b> [8] 36:25 56:12 149:20 150:1 177:13
17:11,20 25:16 30:15,23	used [23] 3:1 5:6 7:8,20	141:14 167:13 185:19	West [6] 67:3 68:15	149.20130.1177.13
43:22 49:9 55:12 60:17	10:23 13:23 15:15 52:5	215:19 221:8	74:20 82:6 200:18 219:8	worker [5] 51:1 186:20
84:25 92:8 111:3,12	65:11 72:3 108:13 129:13	viewed [1] 23:19	wet [1] 178:18	192:8,11 193:14
125:3 126:5,9 130:24	144:2 154:12 168:16			

Discoveries Unlimited Inc., Ph: (709)437-5028

## **Multi-Page**<sup>™</sup>

	Offshore Helicopter Safety Inquiry			
<b>workers</b> [6] 19:16 131:18 146:2 188:6 191:6 191:16				
workforce [3] 33:9 212:22 213:1				
works [5] 156:8 177:8 184:18 198:18 207:13				
<b>world</b> [10] 36:19 55:19 60:19 68:18 90:12 164:14 224:17 225:18 226:5 12				
234:17 235:18 236:5,13 <b>worn</b> [4] 5:15,21 12:19 139:20				
worried [1] 173:14				
worry [1] 25:21				
<b>WOW</b> [1] 182:11				
wrist [2] 6:13 13:6				
-Y-				
yards [1] 68:23				
<b>year</b> [28] 54:22 65:19 81:25 82:5 90:3 96:7				
115:25 118:10 168:2,17				
190:5 195:11 196:10,13 198:2,6 203:10 205:6				
208:9 210:20 212:10,18				
222:18 236:12,13,15,15 236:22				
yearly [3] 102:1 131:15 212:17				
years [29] 34:25 52:3				
53:20 55:14,16,20,21 59:23 70:23 76:6 89:8 89:10 90:15 91:16 102:23 103:16 106:19 154:12 159:5 177:6 196:22 202:22 230:3 235:10				
241:20,23 243:13,15 246:12				
<b>yellow</b> [15] 15:3 62:22 62:23 78:6,13,14 79:23 134:3 172:9,10,12,21 173:10,13,15				
yellows [1] 176:12				
<b>yesterday</b> [5] 26:4 54:12 82:8 133:12 229:21				
<b>yet</b> [2] 1:8 136:7				
younger [1] 56:13				
yourself [1] 6:15				
yourselves [1] 192:25				
<b>YYT</b> [1] 200:5				
-Z-				
<b>zipper</b> [3] 13:5 15:21 16:21				
<b>zone</b> [4] 9:1 206:2 208:8 209:22				