

**IN THE MATTER OF THE THOMAS R. BRAIDWOOD, Q.C.,
COMMISSIONS OF INQUIRY UNDER THE *PUBLIC INQUIRY ACT*,
SBC 2007, c. 9**

Room 801
Federal Courthouse
701 West Georgia Street
Vancouver, B.C.

May 26, 2009

PROCEEDINGS AT
HEARING (DAY 58)

COPY

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Ruling on qualifications
Duane MacInnis
In chief by Mr. Rosenbloom (for Government of Poland)

Vancouver, B.C.
May 26, 2009

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4 THE REGISTRAR: Order. This hearing is now resumed.
5 THE COMMISSIONER: Yes. Good morning, all.
6 MR. VERTLIEB: Mr. Commissioner, I think we should deal
7 with the next witness and then take a break
8 because there are just some procedural issues we
9 need to visit. And that way we're not going to
10 inconvenience Mr. MacInnis or other counsel on
11 this evidence.
12 MR. ROSENBLOOM: Thank you. Good morning, Mr.
13 Commissioner. I call to the stand Mr. Duane
14 MacInnis.

15
16 DUANE MacINNIS, a witness,
17 affirmed.
18

19 THE REGISTRAR: State your full name, please.
20 A Full name is Duane Dennis MacInnis, D-u-a-n-e,
21 Dennis, MacInnis, M-a-c, capital I-n-n-i-s.
22 THE REGISTRAR: Thank you. Be seated. Counsel.
23 MR. ROSENBLOOM: Mr. MacInnis, if you would speak into
24 the mike and speak forcefully.
25 I seek to qualify this witness as an expert
26 in the field of mechanical engineering, in
27 incident and accident reconstruction, and with an
28 applied specialty in forensic photogrammetry. I
29 do not know my friends' position in respect to
30 this application and I await word from them before
31 I carry on with my examination.
32 THE COMMISSIONER: Is there any objection to that? All
33 right. The witness will be so accepted with those
34 qualifications.
35 MR. ROSENBLOOM: Thank you.
36

37 EXAMINATION IN CHIEF BY MR. ROSENBLOOM:
38

39 Q Mr. MacInnis, you have filed your curriculum
40 vitae, your résumé. I just want to highlight
41 certain areas of your résumé before carrying on
42 with my examination in chief.
43 Firstly, sir, you have an engineering degree
44 back in 1972?
45 A Yes, I do.
46 Q And that is in mechanical engineering?
47 A Yes, from Carlton University.

- 1 Q And you are a registered professional engineer in
2 three jurisdictions including Ontario and British
3 Columbia?
- 4 A That's correct.
- 5 Q You are a member of a number of professional
6 associations relating to the engineering field?
- 7 A That's correct.
- 8 Q They're all set out in your CV. Your professional
9 experience, sir, you were a founder and senior
10 engineer with a firm known as MEA Forensic
11 Engineers and Scientists; is that correct?
- 12 A That's correct.
- 13 Q And that dates back from 1982 until the present?
- 14 A Yes. The company was founded in 1982.
- 15 Q And you are a director of that firm?
- 16 A Yes.
- 17 Q And you are the senior engineer?
- 18 A Yes.
- 19 Q And this firm is Canada's largest forensic
20 engineering and scientific firm; is that correct?
- 21 A That's correct.
- 22 Q You have testified in hundreds upon hundreds of
23 cases in the Canadian courts in respect to
24 incident and accident reconstruction?
- 25 A Yes. I believe it's 140 times.
- 26 Q And you have testified in British Columbia courts
27 and in many other court systems, and that's all
28 set out in your résumé?
- 29 A Yes.
- 30 Q You have carried out research projects, and
31 they're all set out in your résumé, but there's
32 one research project in particular that you would
33 like to draw attention to as it relates to the
34 issues at hand at this commission?
- 35 A Yes. I researched the historical development and
36 proofed the mathematics for two-dimensional and
37 three-dimensional photogrammetry.
- 38 Q And what quite does that mean?
- 39 A As engineers, before we can use mathematical
40 models or techniques, we have to understand how
41 they work and how they don't work, their strengths
42 and of course their limitations, and that's what I
43 did many years ago.
- 44 Q Moving on in your CV to your publication area, you
45 have authored a number of publications in the
46 field of engineering?
- 47 A Yes.

- 1 Q And there's one in particular that you would like
2 to draw attention to that, again, relates to the
3 subject matters at hand?
- 4 A Actually two, the first being "An evaluation of
5 rectified bitmap 2-dimensional photogrammetry and
6 its application with PC-Rect," and before that
7 "The application of photogrammetry in accident
8 reconstruction."
- 9 Q And you have given numerous lectures and
10 presentations?
- 11 A Over the years, yes.
- 12 Q And again, from your CV, reference to one in July
13 of 1990 relates to the matters at hand?
- 14 A Yes. There was a conference in Vancouver of the
15 International Association of Accident
16 Reconstruction Specialists, and I gave a
17 presentation and a lecture on two-dimensional
18 photogrammetry.
- 19 Q In terms of training and professional development,
20 there is something to draw to the Commission's
21 attention in September of 1990?
- 22 A Yes. I attended a photogrammetry workshop put on
23 by the Society of Automotive Engineers in Detroit.
- 24 Q Fair enough. Moving to my examination of you, Mr.
25 MacInnis, you agree with the evidence that's
26 already presented to this Commission that Mr.
27 Pritchard's camera height when he took this
28 footage is unknown, correct?
- 29 A Yes, that's my understanding.
- 30 Q You also have heard evidence, and do you agree
31 that there was only one discrete spot or point to
32 locate on Mr. Dziekanski's body for purposes of
33 measurement analysis?
- 34 A Yes, that being on the upper collar area.
- 35 Q And only that one?
- 36 A That's correct, one spot in space.
- 37 Q Accepting those two weaknesses - firstly, the
38 weakness of not knowing the camera height, and
39 secondly, the weakness of not having a second
40 discrete spot on the body - had you been called
41 upon to render an opinion with photogrammetric
42 analysis whether Mr. Dziekanski moved forward or
43 backwards, could you have done so?
- 44 A No. And really I don't think anyone could. The
45 mathematics just aren't there.
- 46 Q Do you then agree with Mr. Hird-Rutter that with
47 only one discrete location or point on Mr.

- 1 Dziekanski's body, one cannot possibly carry out
2 such an analysis?
- 3 A That's correct. You really can't tell where the
4 spot is in space, whether it's close or far from
5 the camera. It's just impossible.
- 6 Q Now, Mr. Fredericks testified yesterday, as I
7 understood him, that he did not carry out a
8 perspective photogrammetric analysis. Do you
9 agree?
- 10 A Well, I think he was ultimately unable to although
11 he may have attempted to.
- 12 Q Why do you say "although he attempted to"?
- 13 A Well, by the nature of his report, it appeared to
14 be representing itself as a camera reverse
15 projection photogrammetry technique.
- 16 Q But was it possible for him to do that?
- 17 A No, of course not. Not with just the one point on
18 the collar.
- 19 Q Mr. Fredericks states in his report that his
20 second point of reference in terms of discrete
21 locations to do analysis, in addition to the top
22 of the collar, was the bottom of the jacket. You
23 have read that?
- 24 A That's what his report says, yes.
- 25 Q Now, we know that wasn't possible, was it?
- 26 A No. It's quite clear from earlier frames on the
27 video that the jacket is much lower than waist
28 level, down near the gentleman's buttocks.
- 29 Q Now, understanding that and hearing Mr.
30 Fredericks' evidence yesterday as to what that
31 second point of reference was, what are your
32 comments?
- 33 A I think he amended his report to read that that
34 point should have been characterized as the top of
35 the counter, I believe.
- 36 Q Yes?
- 37 A Which is of course unrelated to Mr. Dziekanski.
38 And as Mr. Dziekanski moves in any direction,
39 vertically or forward or backwards, that point --
40 that lower point on the jacket is going to travel
41 up and down.
- 42 Q Would we be assisted if you did a diagram with the
43 flipchart to explain exactly what you're saying?
- 44 A It might help. Again, using the format set up by
45 Mr. Hird-Rutter yesterday, I'll draw over here in
46 black a representation of a camera, although they
47 don't look like that any more. And I will --

1 THE COMMISSIONER: You haven't seen mine.

2 A Pardon me, sir?

3 THE COMMISSIONER: You haven't seen my camera.

4 A It's a perfectly adequate camera, I'm sure.

5 And I'll draw a horizontal green line which
6 represents just that, a horizontal green line, not
7 to represent the camera pointing in that direction
8 necessarily. And I'll put another green line down
9 here. Then in black, I'll draw Mr. Dziekanski
10 with his collar and jacket, again not to scale, of
11 course. And in red, I'll put the counter here.
12 And this lower green -- the upper green ray, of
13 course, I've just represented the camera as being
14 approximately at collar height, so that upper
15 green line intersects the collar area. The lower
16 green line is the line that just nips the top of
17 the counter, the ray, going back to the camera.
18 And as you can see here, it intersects the jacket
19 at two distinct points.

20 And if Mr. Dziekanski hypothetically is on
21 rails so that's he's moving without any vertical
22 motion but just moving backwards and forwards,
23 then of course that dot on the jacket, no
24 surprise, is at a totally different point between
25 those two positions.

26 MR. ROSENBLOOM:

27 Q And it's somewhat trite, but where does that leave
28 one in terms of measurement analysis?

29 A Well, the bottom point is meaningless as far as
30 any photogrammetric analysis is concerned.

31 Q And if the bottom point is meaningless, I assume
32 it's meaningless because really that bottom point
33 has no fixed address. Could it almost be put that
34 way?

35 A Yes. It's moving on the jacket, no fixed address.

36 Q And so it moving on the jacket, measurement
37 comparisons between one image and another takes us
38 where?

39 A It has no meaning technically or from a
40 photogrammetric perspective.

41 Q Thank you. You make great effort in your report
42 to do a motion analysis, correct?

43 A Yes, between frames A and B.

44 Q Yes. And one finds your motion analysis work in
45 an appendix, Appendix A to your report, correct?

46 A That's correct.

47 Q It appears that must have taken you a long time.

1 Did it, sir?

2 A It was time consuming, yes. It's tedious work
3 going forward two frames, back one frame, three
4 steps forward, two steps back kind of thing, to
5 detect the subtle motions of Mr. Dziekanski frame
6 by frame, particularly his shoulders and collar
7 area.

8 Q So what were you attempting to achieve in doing
9 this analysis?

10 A I wanted to know how much vertical motion -- how
11 much apparent motion of Mr. Dziekanski was due to
12 just his changing positions of his body frame by
13 frame, so that if we were able or were attempting
14 to compare two frames, that we were comparing
15 apples to apples, if you like.

16 Q And a variance in vertical analysis between one
17 frame and another would have what effect on Mr.
18 Fredericks' methodology?

19 A Well, he's -- even if the methodology was correct,
20 which of course it's not, he would be measuring
21 two things that have moved with respect to one
22 another. So I was attempting to determine what
23 frames might be otherwise similar in their
24 vertical motion.

25 Q So adopting for a moment Mr. Fredericks' flawed
26 methodology, as you put it, ideally Mr. Dziekanski
27 would be on a rail and would maintain the same
28 vertical height throughout the frame review?

29 A Yes. And of course he's not on a rail so what we
30 have to do is compare two images that are
31 vertically similar.

32 Q All right.

33 A If he has cyclic behaviour in his motion, which it
34 appears he does in 2D, then we need to pick two
35 frames that have him at the same point in that
36 vertical motion.

37 Q All right. And we'll go there by first looking at
38 your Appendix A. And just so we all understand
39 the appendix, you have taken the viewing frame by
40 frame and we see a little ways down your appendix,
41 a frame 5678. Is that correct?

42 A 5678, yes, is corresponding with Image A.

43 Q And you've darkened that line. Is that because
44 that is the frame that Mr. Fredericks uses as
45 Image A?

46 A Thank you. Yes, that's effectively Image A.

47 Q All right. And then we go much further down, in

- 1 fact to the next page, and we -- my printer hasn't
2 done this very well. What frame is identified as
3 Image B?
- 4 A 5749.
- 5 Q 5749, yes. And you have darkened that, and that
6 shows the freeze frame of that and the movement of
7 Mr. Dziekanski in that frame, correct?
- 8 A Yes. Where he was in a qualitative sequence of
9 his motion, that's correct.
- 10 Q Right. Now, we see that throughout this three-
11 second period, based upon your analysis in
12 Appendix A, Mr. Dziekanski is moving up and down
13 and up and down and swaying from side to side; is
14 that accurate?
- 15 A Yes. There's an irregular but cyclic motion to
16 him, laterally and vertically.
- 17 Q And so if I can refer to that, if one was charting
18 it, as a wave, it's fair to say there were peaks
19 in terms of height and troughs in terms of height?
- 20 A Yes, relatively speaking.
- 21 Q All right. That being the case, is it fair to say
22 that Mr. Fredericks was selective in the two
23 frames that he chose for analysis, Frame A and B?
- 24 A It appears that he used, for his Frame A, a
25 position of Mr. Dziekanski which was near the high
26 point, and for his Frame B it appears that Mr.
27 Dziekanski was at a low point actually, just
28 before he was tasered.
- 29 Q And sir, is there a consequence to that in terms
30 of science?
- 31 A Yes. To go back and accept, hypothetically for
32 the moment, that his analytical technique was
33 correct, then he's picked two spots which would
34 tend to overstate the vertical motion, because he
35 starts high, ends low.
- 36 Q And the measurements that he would take - again
37 accepting his flawed methodology for a moment -
38 would have no meaning because the vertical had not
39 remained constant between the two frames?
- 40 A Well, it would have a meaning in that the errors
41 would be unmanageable and the results would be
42 wrong basically.
- 43 Q Sir, for the moment, forgetting all the flaws, as
44 you and Mr. Hird-Rutter suggest, in Mr.
45 Fredericks' methodology, and for the moment
46 adopting that flawed methodology, if Mr.
47 Fredericks had been asked to analyze different

1 frames -- and I'm going to put two frames to you.
2 Looking at your chart, Appendix A, if he had been
3 asked to view as the first frame in sequence 5706,
4 you would agree that's a low point in the shoulder
5 and collar movement?

6 A Yes, it is.

7 Q And he was asked as a comparison to choose as
8 Image B, frame 5735. Do you see that?

9 A Yes.

10 Q And that is at the peak of a wave, correct?

11 A That's correct.

12 Q Now again, accepting all the flawed methodology,
13 but adopting it for a moment, had those two frames
14 been chosen, what would have been Mr. Fredericks'
15 analysis and what would have been his conclusion?

16 A Well, the analysis would be the reverse of what
17 he's done. He would have started with Mr.
18 Dziekanski at a low point and ended with Mr.
19 Dziekanski at a high point in this peak/trough
20 behaviour. And if the methodology was to work, it
21 would probably have Mr. Dziekanski reversing
22 towards the camera.

23 Q Because his image would get larger?

24 A Yes, his image would be larger in his second image
25 from his first.

26 Q And so one would have concluded, based upon his
27 approach, that Mr. Dziekanski was moving backwards
28 during that period; is that correct?

29 A Very likely, yes.

30 Q Thank you. You distil down your analysis at
31 Appendix A in your report starting at page 3 and
32 going on to page 4; is that correct?

33 A Yes. There are two tables there, tables 2 and 3.

34 Q Yes. And those tables 2 and 3 simply highlight
35 the peaks and valleys or peaks and troughs of the
36 wave that we've been speaking about?

37 A That's correct. Mr. Dziekanski was both swaying
38 left and right and he was -- his shoulders and
39 collar area were rising and falling.

40 Q Thank you. At page 5 of your report under the
41 analysis of Mr. Fredericks' work that he's brought
42 forth to this Commission, you say, in the second
43 paragraph under that heading:

44

45 There are three critical errors in the
46 Fredericks analysis.

47

1 The first:

2

3

 the measurement errors are close to the
4 differences in the values measured

5

6

 And then you have a full set of paragraphs to
7 elaborate on it. I wonder if you very briefly can
8 explain why you say that is fatal to his analysis.

9

A

 What I've done -- and it's, as my dad used to say,
10 heavy sledding on page 5, mathematically. What
11 I've done is expressed the changes between Image A
12 and B in terms of pixels rather than percent.
13 It's simply the inverse of the method used by Mr.
14 Fredericks. And what I find is a 4.5 pixel
15 difference between Frame A and B on the collar
16 height of Mr. Dziekanski and the so-called length
17 between the collar and the top of the counter.
18 And his error from his own method works out to
19 about 1.2 pixels. So even if everything else was
20 correct, we've got at least a 1.2 pixel error in
21 the measurements by his own numbers, which is a
22 pretty high percentage, pretty high fraction of
23 what you're trying to measure.

24

Q

 The second point you make in terms of seeing
25 critical error is in the fact he cannot measure
26 the same two points on the jacket. I think you've
27 really spoken to that, but very, very briefly,
28 what are you saying?

29

A

 Well, the bottom point is moving, naturally.

30

Q

 Yes. If you had a distinguishable or discrete
31 second spot on Mr. Dziekanski's body, could you do
32 photogrammetry and do an analysis?

33

A

 You might be able to get some useful information
34 out of the photograph, yes. It wouldn't meet the
35 standards of geomatics and Mr. Hird-Rutter, but
36 you might be able to do something meaningful with
37 it. But we'd need a target on the jacket --
38 forgive me. The term "target" is just referring
39 to picking points off a photograph. You'd need a
40 spot on the jacket that was repeatable between
41 Frame A and B, such as a belt or a button or
42 something of that nature, and make some
43 assumptions -- as frail as they may be, make some
44 assumptions that there's no dimensional change in
45 the jacket due to elasticity or body motion
46 between Frame A and B. You might be able to do
47 something with it.

1 Q Meaning where a jacket creased in one movement as
2 opposed to another?
3 A Yes. Yes.
4 Q The third point you make in terms of critical
5 error relates to the fact there is vertical
6 movement, and you've already spoken about that.
7 Is there anything more you want to say about it?
8 A I don't think so. It's just important to be
9 comparing apples to apples.
10 Q Finally, Mr. MacInnis, you state at page 6 --
11 THE COMMISSIONER: Excuse me a minute. In your first
12 point, in order to reach your analysis under your
13 point 1 under "Analysis," you said that you used a
14 pixel analysis, and 4.5 pixel difference and you
15 had a 1.2 pixel error.
16 A Yes, sir.
17 THE COMMISSIONER: Now --
18 A How did I get there?
19 THE COMMISSIONER: No, no. Compared to -- what was the
20 other method? What was Mr. Fredericks' method?
21 A As I understand Mr. Fredericks' method, which I
22 haven't seen before, by rescaling Image B or
23 comparing Image B to Image A by a scale factor, he
24 got it reduced, I think, to 78 percent, was it, of
25 his original dimension?
26 THE COMMISSIONER: So he's using a numbers difference?
27 A Yes, he's using 78 percent --
28 THE COMMISSIONER: A distance difference? Distance in
29 terms of either inches or centimetres or
30 something.
31 A Sir, he's doing it in terms of percent.
32 THE COMMISSIONER: Yes?
33 A So that Image B, using the counter measurements,
34 which is notionally a vertical line, he has found
35 that the counter height in B, as I understand it,
36 is 78 percent of what it was in A.
37 THE COMMISSIONER: No, but in order to get there --
38 A Yes, sir?
39 THE COMMISSIONER: -- don't you have to use a
40 measurement?
41 A He's used pixels, which could as easily be
42 millimetres or thousandths of an inch, or feet for
43 that matter. So he's -- have I --
44 THE COMMISSIONER: Yes.
45 A Thank you, sir.
46 MR. ROSENBLUM:
47 Q So finally, Mr. MacInnis, at page 7 of your

Duane MacInnis

In chief by Mr. Rosenbloom (for Government of Poland)

Cross-exam by Mr. Hira (for Cst. Kwesi Millington)

1 report, you state in part:

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Mr. Fredericks' opinion that Mr. Dziekanski is moving "methodically" towards the police (and away from the camera) --

And I'm quoting your words.

-- is not technically supportable...

Mr. MacInnis, having heard Mr. Fredericks testify yesterday, do you now have any reason to retreat in any way or to any degree from your position?

A No. There's no technical support for those findings.

MR. ROSENBLOOM: Thank you. No further questions.

MR. HIRA: Mr. MacInnis, my name is Ravi Hira. I'm counsel for Officer Kwesi Millington. I wonder, Mr. Registrar, whether we could put before Mr. MacInnis Exhibit 158, Mr. Fredericks' report.

CROSS-EXAMINATION BY MR. HIRA ON BEHALF OF CONSTABLE KWESI MILLINGTON:

Q Let's first of all deal with the camera position. Would you agree with me that from your review of the video, you cannot see much, if any, of the surface, the upper surface of the counter?

A That's true. There seems to be a bit of reflection off the counter.

Q And if you look at pages 11 through 12 of the report, that is Exhibit 158, which depicts four photographs, you can't see much of the top surface of that counter, correct?

A We can certainly see the top surface of the counter, and then there's a shelf above it, and you can still see a little bit of the top of the shelf from the obliquity of the ray from the camera.

Q Point being you can't see a lot of the top shelf, correct?

A You don't see very much depth to it, that's correct.

Q No. Which would suggest that the camera angle is not as you have depicted it in your diagram but lower than that, correct?

A And Mr. Dziekanski would probably be lower as

1 well. My diagram that I've drawn is not to scale.
2 I should have taken pains to point that out.
3 THE COMMISSIONER: No, you said that.
4 MR. HIRA:
5 Q Oh, I understand.
6 A Thank you, sir. But it's for illustrative
7 purposes only.
8 Q I understand that.
9 A Okay.
10 Q That would suggest that the camera, looking at
11 these photos, was probably around the shoulder
12 height in comparison to Mr. Dziekanski. Would you
13 agree with that proposition?
14 A I -- I don't know. I really don't know. I have
15 some information about the stature of Mr.
16 Dziekanski, and his height was just below average,
17 I believe. But I would need some more information
18 on the cameraman himself and of course the
19 assumption that it's the same floor level
20 throughout, which I'm pretty sure it is.
21 Q Let's do it another way. If the camera were
22 above -- I appreciate your diagram is not done to
23 scale. If the camera were above the top surface
24 of the shelf, you'd be able to see more of the
25 surface, correct?
26 A You know, qualitatively, I would agree with you,
27 but we've got a counter that's probably two feet
28 deep and then there's a shelf on top of it, and I
29 don't know how deep -- how broad that shelf on the
30 top is. So we've got to be careful about our
31 findings.
32 Q I'm talking about the shelf on top of the counter,
33 the topmost surface.
34 A Which appears to be a fair bit narrower than the
35 counter itself; is that correct?
36 Q Well, let's be very clear. I'll point it out in
37 the report.
38 THE COMMISSIONER: Counsel, it's sometimes interesting
39 -- I don't know how wide this is, but in order to
40 get that -- go like that (demonstrating) -- at
41 that width.
42 MR. HIRA: I'm trying to get some perspective, Mr.
43 Commissioner.
44 THE COMMISSIONER: I'm just saying, from what I can
45 glean from the picture --
46 MR. HIRA: Yes.
47 THE COMMISSIONER: -- and how much shelf I can see, if

- 1 I assume for a moment, which might be a totally
2 erroneous assumption, that that shelf in the
3 picture is the same width as that shelf, I showed
4 you where my eye would be in order to see the same
5 amount that I'm guessing I'm seeing in the
6 photograph.
- 7 MR. HIRA: Fair enough.
- 8 Q So as I understand your evidence, you say despite
9 looking at these photographs, you can't make any
10 comment as to where that camera is in relation to
11 Mr. Dziekanski's body?
- 12 A It appears, again - and this is not an opinion but
13 a suggestion - to be around the same head height
14 as Mr. Dziekanski.
- 15 Q So head height as opposed to shoulder height;
16 that's your position?
- 17 A It's not a position. It's an estimate.
- 18 Q Okay. Now, let's go to your Appendix A, so we're
19 looking at Exhibit 160A. You were measuring the
20 shoulder positions; is that fair to say?
- 21 A It would be more fair to say I wasn't measuring
22 them but estimating their movement frame by frame.
- 23 Q Fair enough. You were not estimating the movement
24 of the top of the collar?
- 25 A The shoulders and the collar. The upper body
26 area.
- 27 Q The entire upper body?
- 28 A No, just the shoulders and collar area.
- 29 Q All right. And on a two-dimensional surface,
30 which is what we're dealing with, a two-
31 dimensional picture, correct?
- 32 A That's what a photograph is.
- 33 Q If one moves one's shoulder, let's say the right
34 shoulder, to the left, you will agree with me that
35 in the shot taken from behind, the shoulder goes
36 lower?
- 37 A Which shoulder, the one further from the camera or
38 the one closer?
- 39 Q The one furthest from the camera. That would be
40 the right shoulder.
- 41 A If the camera is above the shoulder height and the
42 body rotates --
- 43 Q Yes?
- 44 A -- with no other vertical motion of the shoulder,
45 then the shoulder furthest from the camera would
46 appear to rise.
- 47 Q Thank you. I had it the other way around. So

- 1 this shoulder movement that you see, up and down,
2 may also be a turning movement; would you agree
3 with me?
- 4 A Towards the end there was some turning, just
5 before I understand he was tasered, and then the
6 shoulders shrugged upwards rapidly. So there
7 appeared to be some turning to Mr. Dziekanski's
8 left and dropping of the right shoulder, but I --
9 I'm not an expert in kinesiology so that's just an
10 estimate.
- 11 Q But you have experts in biomechanics at your firm;
12 is that correct?
- 13 A Yes, we do.
- 14 Q Did you seek any opinions from them regarding this
15 matter?
- 16 A I had some discussions with them, yes.
- 17 Q And where did those discussions take you? Were
18 any of those discussions incorporated in your
19 report or your evidence?
- 20 A I got some confirmation of the motions that I was
21 seeing, the swaying left and right and the
22 vertical motion up and down of his body.
- 23 Q And are any of those discussions incorporated in
24 your report?
- 25 A No.
- 26 Q Did you make notes of those discussions?
- 27 A I -- no, I don't believe I did.
- 28 Q Your report -- you've signed it. Are you
29 responsible entirely for its contents or did you
30 have some assistance?
- 31 A No. I'm responsible entirely for it.
- 32 Q All right. Now, let's deal with your Image B for
33 a moment, which you note at page 5 of your report,
34 the second-last paragraph. You note that, "I can
35 re-scale image B based on the counter
36 measurements..." Do you see that?
- 37 A Yes, I do see that.
- 38 Q Now, why did you rescale Image B?
- 39 A It's a mathematical exercise. It's determining
40 what fraction of counter height on B compares to
41 the counter height on A. So it's using Mr.
42 Fredericks' measurements to determine what scale
43 difference there is between the two drawings.
- 44 Q But --
- 45 A I didn't physically do anything with either of the
46 images. It was just using the measurements. And
47 the term rescale means to mathematically rescale

1 it.
2 Q So you didn't make it larger? Is that what you're
3 saying?
4 A That's correct. I've used Mr. Fredericks'
5 measurements.
6 Q So you didn't change the pixel count or anything
7 of that nature?
8 A No.
9 Q All right. Now, you are aware, of course, that
10 Mr. Fredericks used five frames to do his
11 analysis?
12 A He used a couple of frames either side of his
13 Image A and compared them all to a single Image B,
14 is my understanding.
15 Q Well, looking at --
16 MR. HIRA: Perhaps the witness could be given Exhibit
17 161A.
18 Q As I understand that, and correct me if I'm wrong,
19 that appears to be analyzing five frames; would
20 you not agree?
21 A It seems to be.
22 THE COMMISSIONER: Just a moment, though. It's five
23 frames compared to one frame?
24 MR. HIRA: Yes.
25 A That's my understanding, Mr. Commissioner, that
26 he's taken another four frames and taken
27 measurements off them, and yet still comparing
28 them to Image B.
29 Q And did you analyze -- did you conduct the same
30 analysis, that is five frames compared to one
31 frame?
32 A In my rescaling exercise?
33 Q Yes.
34 A No. For the -- suspending my concerns for the
35 moment, I just used Mr. Fredericks' numbers.
36 Q But in your rescaling exercise, as I understood
37 it, you compared Image A to a rescaled Image B?
38 A No. I compared Image A to Image B, and the
39 measurements that were taken on Image A by Mr.
40 Fredericks to the measurements that were taken on
41 Image B by Mr. Fredericks, and found a scale
42 factor, which is the inverse of his percentage
43 decrease. So he got .78, 78 percent. If you
44 invert that, you get 1.28, which is just the
45 multiplier, just a scale factor between one
46 photograph and another. Do you follow?
47 Q I think I do.

- 1 A Okay.
- 2 Q Let me try it another way.
- 3 A Okay.
- 4 Q You came to the conclusion that there's a 25
5 percent error, round numbers, correct?
- 6 A When comparing -- when you reduce it to a pixel
7 measurement from a percentage, yes, you get quite
8 a large probable error in his measurement --
- 9 Q Which --
- 10 A -- based on his own error analysis.
- 11 Q So a 25-percent error would suggest that Mr.
12 Dziekanski would get very much larger or very much
13 smaller through those four or five frames?
- 14 A If you had an error of 25 percent in the pixel
15 count that he has, the difference in pixel count
16 between the two pictures once they're compared one
17 to another with the scale factor, you'll get quite
18 a -- you'll get plus or minus a couple of pixels
19 at least on his measurements, which is a fairly
20 high percentage of the actual difference.
- 21 Q But the point is, if there's a 25-percent error,
22 would we not -- and the error was real, would we
23 not see him get much larger or much smaller?
- 24 A It's 25 percent of the difference of the adjusted
25 difference between the two photographs, so you
26 wouldn't see very much at all, which is perhaps
27 the whole point, that there's not much there to be
28 seen to start with.
- 29 Q All right. So let's just deal with it your way
30 for a moment. You heard Mr. Hird-Rutter's
31 evidence that there was movement and there was a
32 possibility that he was either moving up and down,
33 moving forward, or moving backward. You recall
34 that evidence?
- 35 A I do.
- 36 Q Do you, first of all, agree with that?
- 37 A Generally, yes.
- 38 Q Okay. But more specifically, you say that you
39 believe that there was just this shoulder
40 movement, oscillating movement, correct?
- 41 A Vertical movement of the shoulder area, which of
42 course is connected to the collars.
- 43 Q Sort of a going from foot to foot movement?
- 44 A I'm not sure whether he's going from foot to foot.
45 I can't see the feet. All I can see is the upper
46 body, and I restricted my assessment to the motion
47 of the upper body and shoulder area.

- 1 Q So are the shoulders going up and down without any
2 reference to whether or not the feet are moving up
3 and down with the shoulder?
- 4 A All I can see is the upper body movement, and how
5 he is accomplishing that is not clear to me.
- 6 Q So it's clear that the shoulders -- there are
7 three distinct up-and-downs of the shoulders?
- 8 A There appear to be, yes.
- 9 Q And the three distinct up-and-downs of the
10 shoulders, you can't tell, may be accompanied by
11 and up-and-down of the feet?
- 12 A Perhaps.
- 13 Q Could they also be accompanied by a movement
14 forward?
- 15 A I'm -- I'm going to have to say that I don't have
16 any particular expertise in human gait or motion,
17 so I am really acting well out of my expertise.
- 18 THE COMMISSIONER: Well, if it's not within your
19 expertise, just say so. Or within your knowledge
20 or within your research.
- 21 A It's not within my knowledge, not within my
22 research --
- 23 MR. HIRA: Fair enough.
- 24 A -- to be able to predict what the human motions
25 are in this gentleman's case.
- 26 Q All right. But you left open the possibility of
27 forward movement as one of the three possibilities
28 when you agreed with what Mr. Hird-Rutter had to
29 say?
- 30 THE COMMISSIONER: No. I want to be clear about this.
31 As I understand it, we're talking about scientific
32 possibilities. In other words, how many ways can
33 I move that pen? Now, one is forward. I
34 understand that's what the evidence is.
- 35 MR. HIRA: All right. Let's try it another way.
- 36 Q Your position is, I can't tell whether he's moving
37 forward or backward. I just can say that he's
38 moved his shoulder up and down three times?
- 39 A And laterally.
- 40 Q Side to side as well?
- 41 A Swaying left and right, mm-hmm.
- 42 Q Your second position is -- well, let's deal with
43 it another way. If witnesses seeing his actions
44 from a different perspective than the video gave
45 evidence that he was moving forward at that time,
46 would you agree that your views of the shoulder
47 movement are also consistent with forward

1 movement?

2 MR. ROSENBLOOM: I object on the basis that the witness
3 has already indicated he does not have the
4 expertise to speak to and respond to that
5 question.

6 THE COMMISSIONER: Well, it sounds like argument to me.
7 But one thing I would like to know, when you're
8 talking about the movement of the shoulders, are
9 you saying anything about the collar and the neck?
10 In other words, I'm wondering whether in your
11 analysis you're talking about the body going up
12 and down.

13 A Sir, I could have been clearer. I'm speaking
14 about the body basically, and the shoulders are
15 easy to see against the background. So that's of
16 course what drew my attention. I'm not speaking
17 of some dancing motion of the shoulders with
18 respect to the collar, but rather the entire body
19 moving up and down and swaying left and right.

20 MR. HIRA:

21 Q So the neck too is swaying from side to side and
22 up and down; is that your evidence?

23 A Well, of course. It's connected to the shoulders.

24 Q Now, I notice that you used a program called
25 Windows Media Player -- or sorry, Windows Media
26 Maker. I beg your pardon.

27 A I think it was -- I think to play the full videos,
28 it's called Windows Movie Maker, a consumer
29 product.

30 Q All right. And had you used that program before
31 for this type of analysis?

32 A I've used it to play videos certainly but not for
33 this type of analysis.

34 Q Have you ever done this type of analysis before?

35 A On photographs, on stills, yes.

36 Q And when you were doing this analysis -- I'm
37 sorry, let's deal with it another way. When you
38 were using this commercial program, did you do any
39 research as to whether that program was
40 appropriate or accurate for this type of analysis?

41 A I used Windows Movie Maker to play the videos a
42 number of times in the beginning of the process
43 and then quickly discovered that that wasn't going
44 to be adequate, so then had stills made with
45 QuickTime, a package called QuickTime, and took
46 each frame off that video and worked with the
47 stills with -- I think it's Windows Picture

1 Manager or something like that. So you can click
2 back and forth through the stills to view the
3 motion.

4 Q In the course of doing that, did you -- in the
5 course of making these stills with this other
6 program, did you check whether or not the stills
7 that you were making contained the same number of
8 pixels?

9 A No, I didn't do that.

10 Q Did you check whether the stills were uncompressed
11 or not?

12 A There was a relatively -- my understanding is that
13 the compression environment to creating TIFF files
14 is not as aggressive as some compression
15 mechanisms, so they remained relatively
16 uncompressed, I'm informed.

17 Q You're familiar with MPEG-1?

18 A Generally, yes, but I'm no video expert.

19 Q Are you familiar with something called Huffman
20 encoding?

21 A Not really.

22 Q You heard Mr. Fredericks testify about eight-by-
23 eight blocks of pixels and about macro-blocks of
24 sixteen-by-sixteen.

25 A Yes, I heard him say those things.

26 Q Did you perform any analysis of the sort performed
27 by Mr. Fredericks --

28 A I didn't do --

29 Q -- looking at blocks of pixels?

30 A Sorry, go ahead.

31 Q Looking at blocks of pixels.

32 A No, I didn't do any pixel work at all on the
33 photographs. I used his measurements.

34 Q Now, Mr. Fredericks used an AVI file, as I
35 understand it. Is that -- you recall him
36 testifying to that effect?

37 A I think he created an AVI file with some package,
38 yes.

39 Q With something called VirtualDub?

40 A Yes.

41 Q And did you use an AVI file?

42 A No. I used the stills from QuickTime, TIFF files.

43 Q Now, Mr. Fredericks testified about something
44 called discrete cosine transfer where pixels move
45 down and then diagonally up and then across and
46 then down and diagonally up. Did you do any of
47 that analysis?

- 1 A No, I did not.
- 2 Q Now, you referred early in your evidence to two-
3 dimensional and three-dimensional photogrammetry.
- 4 A Yes, I did.
- 5 Q And that requires stereoscopic imaging, correct?
- 6 A Three-D does. Two-dimensional doesn't.
- 7 Q Two-dimensional requires what? At least a couple
8 of spots on an object?
- 9 A Yes. Analytical 2D photogrammetry, which you
10 might be referring to, rectification, requires
11 known points on the photographs.
- 12 Q And you did testify that there were known points
13 on the jacket. There were wrinkle spots; is that
14 correct?
- 15 A I don't think I said there were any wrinkle spots
16 on the jacket.
- 17 Q Did you look for other known spots on the jacket?
- 18 A I did, but there wasn't anything that I could
19 distinguish as a useful target for photogrammetry.
- 20 Q So let's just go back to Appendix A for a moment.
21 The frames that you used were 5706, is that
22 correct, and 5735? Or that's what you suggested
23 should be used?
- 24 A To what purpose?
- 25 THE COMMISSIONER: No, I'm sorry. He never said
26 suggested they should be used.
- 27 MR. HIRA: All right. Let's deal with it another way.
- 28 Q You gave some evidence regarding frame 5706.
- 29 A Compared to an additional frame, that's correct.
- 30 Q 5735, as I recall.
- 31 A That's correct.
- 32 Q Now, I notice that frame 5706 has an R by it. Do
33 you know what that means?
- 34 A Yeah. That means it's a repeated frame so you
35 should use 5705 before that.
- 36 Q All right. And with respect to the B frame used
37 by Mr. Fredericks, what did you understand that
38 frame to be?
- 39 A I'm not sure I understand what you mean.
- 40 Q Well, which frame did you think was the B frame
41 used by Mr. Fredericks, the one that you rescaled?
- 42 A I used Mr. Fredericks' measurements. I'm not sure
43 what question you're asking, sir.
- 44 Q Image B. Which is -- which frame is Image B in
45 Appendix A?
- 46 A Image B was 5749.
- 47 Q All right. Now, are you able to demonstrate

1 this -- let's deal with it another way. You say
2 that - looking at Appendix A, page 8 - that the
3 shoulders sway left initially; is that correct?
4 A They were in the process of swaying left at the
5 time Image A was recorded.
6 Q Keep aside Image A. Let's go through the motion
7 as you've got it, and I'm looking at the last two
8 columns, the sway and the shoulders column, right?
9 A Mm-hmm, yes.
10 Q So as I understand it, are you suggesting, looking
11 at it, is that the shoulders are turning towards
12 the left or the right?
13 A I'm saying sway. That's not -- sway is
14 translation, not rotation.
15 Q Oh. So going up and down?
16 A If you just moved your body left and right, that
17 might be closer, yes.
18 Q I see. So you're saying he's moving the body, the
19 shoulders, to the left?
20 A Moving the body to the left.
21 Q Moving the body to the left?
22 A Slightly, yes.
23 Q Thank you. And at the same time, the right
24 shoulder is descending; is that correct?
25 A It may be. I can't recall.
26 Q So he's moving the body to the left and the right
27 shoulder is going down?
28 A I -- I really don't recall.
29 Q Well, you've got in the last column "Shoulders
30 descending," and I'm trying to find out whether
31 it's the right shoulder descending or the left
32 shoulder descending.
33 A It's effectively both shoulders in aggregate
34 during the overall descending event.
35 Q Okay. So we're just dealing with the first sway
36 to the left, which is the first block, in relation
37 to the large block in the last column, shoulders
38 descending. Do you see that?
39 A Yes.
40 Q So we've got a sway to the left, a movement to the
41 left, and I'm trying to figure out which shoulder
42 is going down.
43 A They're both going down, sir.
44 Q They're both going down. All right. Then after
45 moving to the left, you're saying, looking at the
46 second block in the second-last column from the
47 right --

1 A The sway column.
2 Q Yes.
3 A Mm-hmm.
4 Q There's a sway to the right. So we go from left
5 to right?
6 A That's correct.
7 Q And I'm trying to understand shoulder descending.
8 You start with right shoulder at maximum height.
9 Which shoulder is descending? Are they both
10 descending --
11 A Yes, sir.
12 Q -- uniformly?
13 A There may be some slight differences in the two
14 shoulders. I don't recall frame by frame. I
15 didn't pick off that fine a detail.
16 Q All right. So this clear movement to the left,
17 clear movement to the right, with shoulders
18 descending.
19 A Yes, sir.
20 Q Okay. So let's go to the third block on the sway
21 column. This is a lengthier and more significant
22 sway to the left?
23 A Seems to be, yes.
24 Q And the shoulders go up and down through the sway
25 to the left?
26 A Apparently, yeah.
27 Q And they go up and down noticeably and
28 significantly, from your perspective?
29 A They were certainly moving enough to pick them off
30 on the individual frames, but there was motion,
31 yes. Sometimes it was fairly slight, fairly
32 subtle.
33 Q So --
34 A Other times it was greater motion.
35 Q -- first they go up, then they go down, and
36 there's significant sway to the left?
37 A A long duration sway to the left would perhaps be
38 a more appropriate term.
39 Q All right. And there's a maximum sway to the
40 left, correct?
41 A Yes.
42 Q And right down through the maximum sway to the
43 left, the shoulders are rising?
44 A Yes.
45 Q And then there's a sway to the right again with
46 the shoulders going down?
47 A That's correct.

1 Q And in your opinion, those movements, although
2 discernible, you cannot tell us on a scientific
3 basis whether they also included a forward
4 movement?

5 A That's correct.

6 MR. HIRA: Thank you. Those are my questions.

7 MR. HARRIS: I just have one question. Before I do,
8 I'll just have a word with Mr. Hira.

9 Sir, my name is Reg Harris. I'm counsel for
10 Corporal Monty Robinson.

11

12 CROSS-EXAMINATION BY HARRIS ON BEHALF OF CORPORAL
13 BENJAMIN ROBINSON:

14

15 Q I'd like to follow up just ever so briefly on my
16 learned friend's last comments. There is nothing
17 in your analysis scientifically to challenge or to
18 discount any evidence that Mr. Dziekanski was
19 moving forward at the time in which the shoulder
20 is occurring; is that fair?

21 A That's correct.

22 MR. HARRIS: Thank you.

23 MR. ROSENBLOOM: No re-examination.

24 THE COMMISSIONER: Sir, thank you very much. You've
25 obviously put a lot of effort into this, and those
26 efforts are very much appreciated.

27 A Thank you, sir.

28

29 (WITNESS EXCUSED)

30

31 THE COMMISSIONER: All right, we'll take a few minutes
32 break.

33 THE REGISTRAR: The hearing will now recess for ten
34 minutes.

35

36 (PROCEEDINGS ADJOURNED)

37 (PROCEEDINGS RECONVENED)

38

39 THE REGISTRAR: The hearing is now resumed.

40 MR. VERTLIEB: Thank you, Mr. Commissioner. It's been
41 most helpful to have the time to deal with some
42 housekeeping matters. Mr. McGowan will deal with
43 the first group of matters and then I have a few
44 after.

45 MR. MCGOWAN: Yes, Mr. Commissioner, a few housekeeping
46 matters. You'll recall Mr. Ehrenholz was here for
47 the airport, and at the time of his evidence we

1 discussed with you the bulk of YVR documents that
2 needed to be filed and the fact that there was
3 some editing ongoing for security matters. That's
4 been completed and I'm going to propose now,
5 subject to anything my friend Mr. Stuart might
6 say, that we file those documents that have been
7 jointly prepared very helpfully by Mr. Stuart and
8 by your Commission staff.

9 MR. STEWART: If I can just briefly comment. I just
10 want to express appreciation to Commission
11 counsel. They've been a second set of eyes in
12 spotting security issues that sometimes I missed.
13 This is a process similar to what's followed with
14 CBSA documents where there are certain things that
15 ought not be in the public realm and just for
16 counsel. All of these documents have been
17 disclosed, many of them in unredacted form. If
18 you want to make reference to them, as has been
19 the process, the redacted form that's marked as
20 the exhibit should be referred to. Thank you.

21 THE COMMISSIONER: All right. I'm most obliged for
22 that cooperation. They'll be the next exhibit.

23 MR. MCGOWAN: Mr. Commissioner, the next matter also
24 relates to the airport. There was an inquiry made
25 some time earlier during the evidence of one of
26 the witnesses by Mr. Goulden on behalf of the City
27 of Richmond and specifically the fire fighters,
28 and that inquiry related to the prox records for
29 the operations room at the airport. The
30 Commission has made some inquiries and we've been
31 advised through Mr. Stewart on behalf of the
32 airport that the prox records for that location
33 were not retained. They were destroyed just as a
34 matter of course, or I guess deleted as a matter
35 of course 30 days after they were created, so they
36 are unavailable.

37 THE COMMISSIONER: All right.

38 MR. MCGOWAN: The next matter, Mr. Commissioner. Your
39 Commission staff early on reviewed the memory
40 stick or the memory card from the Pritchard video
41 and extracted from that some specific information
42 relating to the timing of the videos and the
43 interval between the three segments. That was
44 disclosed to all of the participants, and there
45 has been a request that that information be filed
46 as an exhibit, and I'm going to suggest that we do
47 that.

1 THE COMMISSIONER: All right. That will be the next
2 exhibit.

3 THE REGISTRAR: The extractions will be Exhibit 168.
4 The previous documents, three binders, will be
5 marked as 167.
6

7 EXHIBIT 167A: Copies - 3-ring binder, YVR
8 Second Phase, Policy Document Production -
9 1st Tranche [3 binders]

10
11 EXHIBIT 167B: Copies - 3-ring binder, YVR
12 Second Phase, Policy Document Production -
13 2nd Tranche
14

15 EXHIBIT 167C: 3-ring binder, YVR Second
16 Phase, Policy Document Production -
17 Additional Documents
18

19 EXHIBIT 168: Copy - Timing of the Pritchard
20 Video
21

22 THE COMMISSIONER: I'm going to have to read all of
23 that.

24 MR. MCGOWAN: Mr. Commissioner, throughout the hearing
25 we've had a number of exhibits filed and Mr. Giles
26 has very helpfully been compiling an exhibit list.
27 And recently Mr. Giles and your staff have gone
28 through that list and noted that some of the
29 descriptions of exhibits or names of exhibits were
30 a little bit less than fulsome. So a new exhibit
31 list has been created with perhaps slightly more
32 accurate exhibit descriptions, and that will be
33 prepared and distributed to all counsel. There
34 are a couple of brief matters that relate to that
35 to note. One of the exhibits had been misnumbered
36 in the collection of exhibits. There was a
37 mistake between 40B and 40D. That has been
38 cleared up on the new exhibit list, which I will
39 file at this time. It doesn't need to be an
40 exhibit, of course. It will be distributed to all
41 counsel.

42 THE COMMISSIONER: All right. Thank you so much.

43 MR. MCGOWAN: In that same vein, the Commission's copy
44 of one of the exhibits was missing a couple of
45 pages. One of the statements of Constable
46 Bentley, Exhibit 51, the copy that had been filed
47 was incomplete. There were two portions to the

1 same statement and there was a brief break. So
2 I'm going to at this time provide the last what
3 would be three pages of that exhibit to Mr. Giles.

4 The next issue, Mr. Commissioner, relates to
5 the handwritten notes of three of the police
6 officers. That's officers Rundel, Bentley and
7 Robinson. They were not filed as full exhibits at
8 the time. I think two of them were marked for ID.
9 My recollection is there was some concern about
10 personal information contained in the notes. I
11 think they should appropriately be full exhibits.
12 And what I'm going to suggest is that they become
13 full exhibits and that the notes of Officer Rundel
14 be marked as a full exhibit and that there be
15 instead a publication ban relating to any personal
16 or private information contained in those
17 documents, getting the same effect but having them
18 now proper pieces of evidence.

19 THE COMMISSIONER: Yes, I agree with that. There will
20 be a publication ban on anything of a personal
21 nature within that exhibit.

22 MR. MCGOWAN: And in that regard, Mr. Commissioner,
23 that would make Exhibit P for Identification and
24 Exhibit S for Identification now full exhibits,
25 and there would be the additional exhibit which is
26 two pages of Constable Rundel's notes. And we'll
27 mark those as the next exhibit. I wonder if Mr.
28 Giles could just assign them a number and I'll
29 provide a copy.

30 THE REGISTRAR: For Identification P will be marked
31 169. For Identification F will be marked --

32 MR. MCGOWAN: No, S. S as in Sam.

33 THE REGISTRAR: S as in Sam, sorry, will be marked as
34 170.

35
36 EXHIBIT 169: Copy - Handwritten pages from
37 Cst. Bentley's notebook

38
39 EXHIBIT 170: Copy - Handwritten notes from
40 Cpl. Robinson's notebook

41
42 MR. MCGOWAN: And the additional set of notes relating
43 to Constable Rundel.

44 THE REGISTRAR: Notes for Rundel will be marked as 171.

45
46 EXHIBIT 171: Copy - Handwritten notes from
47 Cst. Rundel's notebook

1 MR. STEWART: Just briefly, and Ms. Friesen just
2 brought this to my attention, I think that in the
3 handwritten notes of the officers there are
4 personal phone numbers of various of the
5 witnesses.
6 MR. MCGOWAN: Yes.
7 MR. STEWART: And I'm just wondering, if we're marking
8 handwritten notes, that a note should be made --
9 MR. MCGOWAN: That's what I'd addressed with the
10 personal information is the publication ban.
11 MR. STEWART: Okay.
12 MR. MCGOWAN: As long as my friend's content with that,
13 I think that's an appropriate --
14 THE COMMISSIONER: Yes. That ban will include personal
15 phone numbers.
16 MR. MCGOWAN: I was approached by Ms. Spencer on behalf
17 of TASER the other day. I understood there were
18 some exhibits relating to Dr. Butt. And we'd had
19 some discussions -- I'm not sure if -- perhaps Mr.
20 Neave will address it if he's still wishing to
21 have those filed. I think we've sorted out what
22 needs to be done there.
23 MR. NEAVE: Mr. Commissioner, David Neave for TASER.
24 We neglected to file two of the handwritten
25 documents that I put to Dr. Butt. The remainder
26 of them have been marked as an exhibit, and I
27 would propose that these two additions also be
28 marked.
29 THE COMMISSIONER: Yes, they'll be marked. And once
30 again, I'm just reiterating that when we come to
31 the marking of exhibits - particularly I have in
32 mind the medical reports, but there could be
33 others - they may contain things that are not
34 either within the expertise of the doctor or other
35 matters that are not relevant. So they are not
36 being filed entirely for the truth of the contents
37 or for the full opinion. They'll have to be
38 analyzed.
39 MR. NEAVE: Yes. And indeed, Mr. Commissioner, with
40 respect to Dr. Lu and his 12th of May 2009 report,
41 I've got a brief submission with respect to the
42 admissibility of certain portions of that because
43 they're clearly outside his submission. I'd like
44 to deal with the Butt exhibits first.
45 THE COMMISSIONER: Yes. Yes.
46 THE REGISTRAR: The two documents handed up by Mr.
47 Neave will be marked as Exhibit 172, A and B.

1 EXHIBIT 172A: Copy - Handwritten notes by
2 Dr. J. Butt entitled "Linkage to Taser and
3 circumstances of death and injury"
4

5 EXHIBIT 172B: Copy - Handwritten notes of
6 Dr. J. BUTT entitled "Cerebellum function"
7

8 MR. MCGOWAN: Mr. Commissioner, the final matter I
9 wanted to raise with you at this time was the
10 report of Mr. Nickel. You'll recall that
11 Commission counsel had not tendered it as an
12 exhibit. Mr. Kosteckyj had requested that it be
13 tendered as an exhibit. In response to some
14 comments made by Mr. Hira, you had marked it for
15 identification. Mr. Kosteckyj was not present at
16 that time. I'll leave it to him to determine
17 whether he is still seeking to have it filed, and
18 if so, to address that with you.

19 THE COMMISSIONER: Well, I think it should be marked.
20 But as I remember, he was accepted by me as an
21 expert in forensic video analysis.

22 MR. MCGOWAN: I'm sorry, Mr. Commissioner. I'm
23 speaking -- I'm sorry. I should have been more
24 clear. I'm speaking of Mr. Orv Nickel, who was
25 the use of force expert, the retired RCMP officer.
26 He was proposed by Mr. Kosteckyj. And he
27 addressed --

28 THE COMMISSIONER: I recall him.

29 MR. MCGOWAN: Yes. He addressed a number of matters
30 relating to use of force in his evidence. His
31 report was somewhat more broadly drafted and
32 addressed RCMP policy issues and some other
33 matters. Mr. Kosteckyj had dealt with it in his
34 examination and had asked that it be marked but
35 had left before the matter was addressed. It was
36 sort of put on hold. So I'll --

37 THE COMMISSIONER: Well, there was very serious
38 challenge by the cross-examiners as to his
39 expertise. So what is the position now?

40 MR. KOSTECKYJ: Well, he was qualified as an expert.
41 And of course, the entire matter goes to weight,
42 as it does with all experts. And I would ask that
43 that exhibit be marked. It was his report. He
44 was prepared. He did give evidence. It was
45 referred to during testimony.

46 THE COMMISSIONER: Is there any objection to this?

47 MR. HIRA: It's the same position as I took at six

1 o'clock last Friday. Mr. Kosteckyj referred him
2 to two points in the report. I was very careful
3 in my cross-examination of Mr. Nickel to not refer
4 to the report as it had not been marked. We're in
5 the same situation that the Court of Appeal dealt
6 with in two cases out of the early '80s, *Regina v.*
7 *Smith* and *Regina v. Newell*. Where you cross-
8 examine on notes or a statement and there's
9 extensive cross-examination - and frankly I wasn't
10 expecting this so I'm not being very artful in my
11 presentation - they can be marked and can be used
12 to assess credibility. Here there was no such
13 cross-examination of that nature. It was
14 specifically not done because the references were
15 minor. Accordingly, in my submission, it should
16 not be marked beyond identification, which is the
17 way it has been marked currently.

18 MR. HARRIS: I echo Mr. Hira's comments, and you will
19 note from my cross-examination I did not touch on
20 in any way, shape or form any of the commentary
21 set out in the report. As well, I also note that
22 the report transcends beyond the boundaries of
23 what his expertise was qualified for. And for
24 those reasons I say mark for identification, yes,
25 but not exhibit proper.

26 THE COMMISSIONER: I'm going to leave it marked as
27 identification because what part of the report
28 should be accepted and what part should not be
29 accepted will take some considerable analysis,
30 more than I'm able to do sitting here now. So
31 that is my position on that document.

32 MR. VERTLIEB: Thank you, Mr. Commissioner. There are
33 a few matters that I wish to deal with. First,
34 Mr. Beaubier has a position he'd like to take
35 concerning a letter that appeared subsequent to
36 the evidence of Dr. Michael Webster. Mr. Beaubier
37 has asked for an opportunity, as I believe others
38 seek as well, to discuss that.

39 THE REGISTRAR: Excuse me, counsel. Before we start
40 that, did you wish to mark the chart of Mr.
41 MacInnis as an exhibit?

42 THE COMMISSIONER: Oh, yes. Mark that as the next
43 exhibit.

44 THE REGISTRAR: That will be marked as Exhibit Number
45 173.

46
47

1 EXHIBIT 173: Original - Flip chart page
2 showing single camera position
3

4 MR. BEAUBIER: Mr. Commissioner, as you're aware, Dr.
5 Webster testified extensively in these proceedings
6 on the 12th and 13th of May and prepared a report
7 which is now Exhibit 146 in these proceedings.
8 The report and his evidence was consistent with a
9 criticism of the four officers that attended the
10 YVR and it's summarized in his report:
11

12 In my opinion the RCMP members mishandled
13 this call and responded inappropriately...
14

15 He then went on in his evidence and in his report
16 to describe the manner in which he felt that they
17 had mishandled that call.

18 Subsequent to that, on the 15th of May of
19 2009, Dr. Webster caused to be published in the
20 *Globe and Mail* an open letter to Mrs. Cisowski
21 basically reiterating his comments with respect to
22 his report and his testimony. But he went a
23 little further. In particular, he opines that on
24 -- makes the statement:
25

26 The way your son was treated on October 14,
27 2007 was in my opinion, the absolute worst of
28 Canadian policing.
29

30 However, he goes on within that report to comment
31 on the responsibility, and he directs that
32 responsibility primarily towards what he describes
33 as the RCMP executive.

34 And quoting from the second page, the final
35 paragraph in that open letter, he states:
36

37 Let me be clear, I hold the RCMP executive
38 responsible for this attitude and indirectly
39 responsible for Robert's death. Tragically,
40 the four policemen were doing what they had
41 been trained to do. They actually believed
42 the incredible testimony they gave at the
43 Inquiry. (Some law enforcement training
44 materials actually suggest the use of a
45 conducted energy weapon for people in an
46 agitated state).
47

1 So there is an inconsistency between what he has
2 stated in his first Exhibit 146 and his verbal
3 testimony with respect to this open letter.

4 The thrust of the open letter follows his
5 opinion and testimony. I would submit that it
6 would be appropriate for this letter to be marked
7 as an exhibit in these proceedings for the
8 Commissioner to consider in your final
9 deliberations with respect to any conclusions you
10 might reach at the end of the day. Thank you.

11 MR. HIRA: I support the application and I think you
12 should have a copy of the letter in front of you.

13 THE COMMISSIONER: I do.

14 MR. HIRA: Thank you. Good. He testified on May 12
15 and May 13, and on May 15 wrote this letter.
16 There are a couple of ways of dealing with this.
17 One way would be to recall him, because the letter
18 is relevant, and put it to him. But the fact is,
19 he's not going to deny that he wrote the letter
20 and holds those opinions. If we accept that, then
21 there is no damage done in having the letter
22 marked as an exhibit without recalling him and
23 then making use of it in argument and in your
24 decision as you may wish to make or we may wish to
25 argue.

26 It is relevant. It goes to his opinion. He
27 talks about his testimony. And it certainly
28 supports, we say, certain aspects of the evidence
29 of the officers that they acted in accordance with
30 their training. And you qualified him
31 specifically as an expert in the field tendered,
32 the use of force in crisis intervention
33 perspective.

34 Those are my submissions.

35 And I should add that if it isn't marked - so
36 I don't have to stand up again - it'll be my
37 position that it should definitely be marked for
38 identification - that's not to resile from my
39 earlier position - so the record is complete from
40 our perspective.

41 MR. KOSTECKYJ: The only point that I would make about
42 this is that it seems to me to be a dangerous
43 precedent to take documents which are unsworn and
44 outside of the courtroom and then to mark them as
45 exhibits. There were opportunities to at least
46 recall Mr. Webster or to ask to have him recalled,
47 and this is brought at the last moment. But

1 that's really my only position, is that when you
2 take unsworn statements that are made outside of a
3 courtroom setting and try to introduce them as an
4 exhibit, it's a dangerous precedent to set.

5 MR. BRONGERS: Thank you, Mr. Commissioner. It's
6 difficult to see what purpose would be served by
7 tendering into evidence what is essentially a
8 publicly available newspaper article.
9 Furthermore, the opinion expressed in the article
10 more or less mirrors what Dr. Webster testified to
11 a couple of weeks ago, and therefore does not seem
12 to add much in terms of assistance to you, Mr.
13 Commissioner, in writing your report.

14 Also, to the extent that Dr. Webster now
15 opines on the ultimate issue before this
16 Commission, we trust that this aspect of the
17 opinion must be discounted since it will be up to
18 you, Mr. Commissioner, to determine whether blame
19 should be assigned in this matter, and if so, to
20 whom.

21 That being said, this is a commission of
22 inquiry and the rules of evidence are not as
23 strict as they are in a trial. Therefore if you,
24 Mr. Commissioner, are inclined to enter this
25 article into evidence, Canada has no objection on
26 admissibility grounds, but we would echo Mr.
27 Kosteckyj's view that it would be preferable to
28 mark it for identification purposes only. Thank
29 you.

30 MR. HIRA: On the aspect of notice, the article was
31 published on the weekend. Mr. Beaubier wrote on
32 May 20 bringing the article to the attention of
33 Commission counsel and our wishes to have it
34 marked. I discussed perhaps recalling him, and if
35 that was an issue, I'm happy to make that
36 application. But it seems to me that all he'll
37 say is, "That's my opinion and I hold it," and
38 then there'd be some further cross-examination on
39 various points.

40 It seems to me that it should be marked, and
41 if it isn't, I'd ask that the letter and the
42 covering note from Mr. Beaubier be marked for
43 identification for the completeness of the record.

44 MR. VERTLIEB: Mr. Hira is correct about Mr. Beaubier's
45 request earlier. I have nothing that I can add to
46 help you with this. Everything that needs to be
47 said has been said.

1 THE COMMISSIONER: I must say that my memory is a
2 little dim on this, but I don't remember him
3 saying very much different than this when he took
4 the stand. But anyway, that will have to be
5 checked. Also, as probably counsel have noted,
6 the point in the letter, apart from his interest
7 in making certain comments of course as to trying
8 to explain these matters from a police
9 perspective, is he's advancing a policy position
10 here, namely the training that should properly be
11 given to police officers. That's the agenda,
12 apart from the more kindly obvious agenda in
13 writing this letter.

14 That being so, I'm only going to mark it at
15 this time for identification, and I'm going to
16 eventually have a look at the transcript of what
17 he said and compare it to it, because I rather
18 think that there's not much difference, if any.
19 But I'll check. So that will be my ruling. It
20 will be marked for identification at this moment.

21 THE REGISTRAR: That document will be marked for
22 identification, letter X.

23
24 EXHIBIT X FOR IDENTIFICATION: Copy - Open
25 letter of Dr. Mike WEBSTER to the Globe &
26 Mail dated May 15, 2009
27

28 MR. VERTLIEB: One of the participants has asked that
29 the name of the psychologist who did the critical
30 incident debriefing be provided. I've taken that
31 request up with counsel for the Government of
32 Canada, and counsel have indicated that they do
33 not have instructions to give that information.
34 I'm just wondering if counsel for the Government
35 of Canada can just confirm the situation and let
36 us know where they're at with that request.

37 MR. BRONGERS: Thank you, Mr. Commissioner. There have
38 been informal discussions between counsel for
39 Canada and counsel for the Commission with respect
40 to this issue. Our clients do have some concerns
41 with Mr. Vertlieb's request. And just before the
42 break, Commission counsel stated that he wished to
43 seek an order from you, Mr. Commissioner, with
44 respect to this matter. I don't know if he wishes
45 to pursue that.

46 MR. VERTLIEB: No. I just wanted to have this
47 discussion. I think it might be helpful.

1 MR. BRONGERS: We are in the process of seeking
2 instructions with respect to this, so we would
3 appreciate a little more time to deal with Mr.
4 Vertlieb's request.

5 THE COMMISSIONER: Well, your clients through both of
6 you have been very cooperative with this inquiry,
7 and I certainly would hesitate to make a rash
8 order at this time of such a nature. You've
9 indicated you're going to look into it and I'm
10 going to be content with that.

11 MR. BRONGERS: Thank you very much, Mr. Commissioner.

12 MR. KOSTECKYJ: I had actually written to Commission
13 counsel and asked. And the purpose of it was, so
14 that we understand this, is not to get into the
15 detail of -- at least my purpose wasn't to get
16 into the detail of what was discussed but rather
17 what model was used during that psychological
18 debriefing and to get to the detail of that
19 because it had some significance based upon the
20 evidence of Dr. Webster and also based on the
21 inconsistent evidence between the various police
22 officers as to what was discussed at that meeting.

23 THE COMMISSIONER: I'm sure Mr. Brongers heard that
24 request and we'll see what occurs.

25 MR. VERTLIEB: Now, consistent with the ruling you made
26 concerning sending reports of some of the experts
27 to other expert writers who had provided earlier
28 evidence - and we have in mind, of course, people
29 who wrote reports for the benefit of the IHIT
30 investigation and reports subsequently - we have
31 sent correspondence and e-mail contact to all of
32 the people involved. And it appears that we've
33 got responses from some. So I'd like to mark a
34 response that just came in in the last twenty-four
35 hours from PhD Dorin Panescu dated May 25, 2009.
36 This was just sent out this morning to all your
37 participants. I'd like to have that report marked
38 as the next exhibit.

39 THE REGISTRAR: That will be marked as Exhibit Number
40 174.

41
42 EXHIBIT 174: Copy - Report of Dr. Dorin
43 Panescu dated May 25, 2009
44

45 MR. VERTLIEB: Thank you. We are told that Dr.
46 Swerdlow may have something by tomorrow. The date
47 that we had asked for end date purposes was

1 today's date. But certainly if Dr. Swerdlow has
2 something tomorrow that is in answer to any of
3 these, we'll send it to the participants and we
4 can deal with that if need be on our next date
5 together.

6 Finally, Dr. Lu, in response to this matter,
7 has sent a number of items to us, and I know Mr.
8 Neave wishes to address you on part of it.

9 Just for the record, Dr. Lu wrote a report
10 dated May 12, 2009, and then sent an e-mail dated
11 May 22, 2009, and sent another e-mail dated May
12 25, 2009. And I think that collectively, subject
13 to of course Mr. Neave's discussion with you, that
14 these should be marked as an exhibit. Let me just
15 pass this to you so you at least see what we are
16 discussing, and then Mr. Neave can address you on
17 his concern.

18 THE COMMISSIONER: Yes, all right. I haven't read any
19 of these reports.

20 MR. NEAVE: Thank you, Mr. Commissioner. David Neave,
21 for the record.

22 The concern I have is exclusively with Dr.
23 Lu's follow-up report of the 12th of May 2009, and
24 it flows primarily from the nature of his
25 qualifications. Mr. Commissioner, you qualified
26 Dr. Lu on the 4th of May in the field of
27 psychiatry and in the field of addiction medicine
28 exclusively.

29 What Dr. Lu has done in the May 12th, 2009,
30 report is he has reviewed the reports of Drs.
31 Chambers, Kerr, Janke and Tseng, the reports
32 themselves. There's no indication that he's
33 reviewed their evidence in chief or any of the
34 cross-examination transcripts in formulating this
35 report.

36 You will see that Dr. Lu makes specific
37 comments on page 3 of 3 with respect to Dr.
38 Janke's May 26th, 2009, report and expresses his
39 opinion with respect to what Dr. Janke has to say
40 on those various issues, and I think that is quite
41 fair in the circumstances. That is clearly within
42 his sphere of expertise and it's clearly within
43 his sphere of the qualifications which you granted
44 on the 4th of May.

45 The rest of the report, however, addresses
46 medical issues. It addresses issues related to
47 cardiac impacts of the Taser device. It addresses

1 issues of cardiology and electrophysiology, and in
2 particular the last paragraph on page 3 of 3. And
3 I say all of that evidence is outside of Dr.
4 Lu's --

5 THE COMMISSIONER: The first sentence looks all right.

6 MR. NEAVE: Yes. The first sentence of -- that's right
7 because he is speaking of a comment with respect
8 to issues of delirium and the risk of death in the
9 first sentence on the first full -- the paragraph
10 starting "Although in my report..." The rest,
11 though, of that paragraph, with the exception of
12 the last sentence, when he says, "The opinion
13 expressed during my appearance at the Braidwood
14 Inquiry on May 4th in my medical report remains
15 unchanged," that's fair. The rest of that
16 paragraph is outside of his qualifications, as is
17 a number of his comments with respect to his
18 review of the evidence -- the reports, not the
19 evidence -- the reports of Drs. Chambers, Kerr and
20 Tseng.

21 And it's my submission that those portions of
22 the report are not admissible. They're outside
23 his area of expertise and ought to be struck.

24 THE COMMISSIONER: Mr. Neave, I agree with you overall.

25 MR. NEAVE: Thank you.

26 THE COMMISSIONER: But they will be marked as an
27 exhibit. And I don't particularly want to sit
28 here with a pen and strike out sentences. But I'm
29 saying that I think you're quite right in terms of
30 what part of it should be given any weight at all.

31 MR. NEAVE: Thank you.

32 THE REGISTRAR: The May 12th report will be marked as
33 175A. The e-mail of May 22nd will be marked as
34 Exhibit 175B. The e-mail of May 25th will be
35 marked as 175C.

36
37 EXHIBIT 175A: Copy - Dr. Lu, ShaoHua report
38 dated May 12, 2009

39
40 EXHIBIT 175B: Copy - Dr. LU, ShaoHua email
41 to Cathy STOOSHNOV dated may 22, 2009

42
43 EXHIBIT 175C: Copy - C. Stooshnov email to
44 all parties dated May 25, 2009 re: Message
45 from Dr. Lu

46
47 MR. VERTLIEB: Thank you. Now, dates for closing

1 argument. One of the participants' counsel
2 simply, under no circumstance, can be available on
3 the 22nd of June, which was the date originally
4 scheduled to start closing argument. That counsel
5 has made communications with the other counsel, I
6 understand, about starting on June 19 and then
7 proceeding on the 23rd and 24th. And I just think
8 that we should confirm that we will start closing
9 argument on the 19th of June and go the 23rd and
10 24th. I wanted everyone here to have a chance to
11 pipe up, so to speak, if there's an issue. But I
12 understand that that has now been confirmed with
13 everybody and I see everybody looking comfortable
14 with that June 19 date, June 19, 23, 24.

15 MR. ROSENBLOOM: Well, Mr. Vertlieb, I have indicated
16 to you a serious problem that I have on the 23rd.
17 I don't know how to work that out and I think
18 maybe you and I can continue to speak to it later.
19 There is a memorial for one of my closest friends
20 on that afternoon of the 23rd and I have an
21 obligation to be there. But in any event, I think
22 between the two of us we can discuss it. Thank
23 you.

24 THE COMMISSIONER: Well, thank you very much, counsel.
25 We'll adjourn in a few moments to the 19th and
26 we'll have the argument on the 19th, 23rd and
27 24th. We're having a long adjournment now, and I
28 just want to say that most of you know the
29 experience I've had as counsel and as a judge, and
30 I must say that every counsel in this room has, I
31 believe, done an excellent job for their
32 individual clients and indeed in assisting me. So
33 with those notes, now, we'll adjourn to ten
34 o'clock on the 19th.

35 THE REGISTRAR: Mr. Commissioner, may I also advise
36 that the hearings will be held here. There's been
37 some discussion that they would not, but they will
38 be here.

39 THE COMMISSIONER: Thank you.

40
41 (PROCEEDINGS ADJOURNED TO JUNE 19, 2009, AT
42 10:00 A.M.)
43
44
45
46
47