



# Banner Page

Document ID:  
Investigation: DUNPHY – 2015-376186

Document Title

Doc Description

How Received

When Received

Date

Document Type:

Document Summary:

Bulletproof Forensic Consulting – Review of Shooting Evidence – Report No. 1 - amended

This is a copy of a document already in the system

POC Content

Secured for Hold Back or Disclosure Issues

Vetting

Submitted/Recommended/Approved By

Date 2016-03-09

Number ID	Category	Reason
83	T	
Darryl BARR	P	
Bulletproof Forensic Consulting	E	

**BULLETPROOF FORENSIC CONSULTING**

120, 11012 Macleod Trail SE, Calgary, AB T2J 6A5

Phone: 587-██████████-339 E-mail: dbarr@██████████.m

---

**RE: REVIEW OF SHOOTING EVIDENCE**

**SUBMITTED TO: STEVE BURKE, CPL.  
SUPERVISOR/INVESTIGATOR  
R.C.M.P.  
MAJOR CRIMES UNIT (EAST)  
"B" DIVISION, ST. JOHN'S, NL**

**PERTAINING TO: DONALD DUNPHY  
SHOOTING DEATH OF  
APRIL 5, 2015  
MITCHELLS BROOK, NL  
R.C.M.P. FILE 2015-376186**

**PREPARED BY: DARRYL BARR, B. SC., FA/TM/GSR-AFTE  
BULLETPROOF FORENSIC CONSULTING LTD.  
120, 11012 MACLEOD TRIAL SE  
CALGARY, AB T2J 6A5**

**FEBRUARY 8, 2016**

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

---

## 1.0 SUMMARY OF FINDINGS

- 1.1 The notes of, statements of and re-enactment by Joe SMYTH, hereafter referred to as "the account of SMYTH", pertaining specifically to the details of the shooting of Donald DUNPHY on April 5, 2015 in Mitchells Brook, NL is supported by the following elements of physical evidence:
- 1.1.A The number of gunshots determined to have been fired.
  - 1.1.B The location and direction of projectile impact damage in the wall.
  - 1.1.C The location and nature of projectile impact damage in the chair.
  - 1.1.D The location and direction of gunshot wounds to DUNPHY.
  - 1.1.E The distance from which the gunshots were fired at DUNPHY.
  - 1.1.F The location of fired cartridge cases at the scene.
- 1.2 No elements of the shooting related evidence were identified that refute the account of SMYTH.

## 2.0 INTRODUCTION

At your request a review of materials has been undertaken with respect to the shooting related evidence in the shooting death of Donald DUNPHY on April 5, 2015 in Mitchells Brook, NL. The account of SMYTH was reviewed and compared to the shooting related evidence in order to determine if any physical evidence exists that either supports or refutes the account of SMYTH.



Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

### 3.0 MATERIALS REVIEWED

Cpl. Steve Burke and Sgt. Chris Saunders provided the following reference materials for review:

- 3.1 IDENT Occurrence Report of Sgt. Chris Saunders, 9 pages, dated 2015-04-29
- 3.2 IDENT Continuation Report of Cpl. Kelly Lee, 9 pages, dated 2015-05-01
- 3.3 Notes of Sgt. Chris Saunders, 8 pages, dated 2015-04-05 and 2015-04-06
- 3.4 Notes of Cpl. Kelly Lee, 12 pages, dated 2015-04-06
- 3.5 Forensic Identification Services (FIS) scene photos, 107 photos, photographed by Sgt. Chris Saunders on 2015-04-05
- 3.6 Close up photos of recovered bullets, 9 photos
- 3.7 FIS scene video, 39 minutes and 31 seconds, recorded by Cpl. Kelly Lee on 2015-04-05 and 2015-04-06
- 3.8 Scene diagram of "Residence, Route 93, Mitchells Brook, NL" prepared by Sgt. Chris Saunders
- 3.9 R.C.M.P. Forensic Science and Identification Services Laboratory Report, 4 pages, submitted by Greg Williams dated 2015-09-23
- 3.10 Autopsy Report of Donald Dunphy from Dr. Simon P. Avis, 19 pages, dated 2015-06-03
- 3.11 Office of the Chief Medical Examiner Scene Report, 2 pages
- 3.12 Notes of Joe Smyth, 3 pages
- 3.13 Video of statement of Joe Smyth, 1 hour 36 minutes, dated 2015-04-06
- 3.14 Statement of Joe Smyth, 75 pages, dated 2015-04-06
- 3.15 Statement of Joe Smyth, 10 pages, dated 2015-08-26
- 3.16 Statement of Joe Smyth, 13 pages, dated 2015-09-14
- 3.17 Video of re-enactment with Joe Smyth, 48 minutes 47 seconds, recorded on 2015-04-10
- 3.18 Transcript of re-enactment of Joe Smyth, 27 pages, dated 2015-04-10

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

BULLETPROOF  
FORENSIC  
CONSULTING  
File No.: 1501

#### 4.0 EVALUATION OF THE PHYSICAL EVIDENCE

The following is an evaluation of the shooting related physical evidence as it pertains to the shooting of DUNPHY.

For the purposes of this report, the following directions shall be used for providing reference within the scene:

- North is the direction of the living room wall where the couch is located.
- East is the direction of the living room wall where the fireplace is located.
- South is the direction of the living room wall with the windows.
- West is the direction of the living room wall with the entrance to the living room from the hallway.

4.1 Four (4) fired cartridge cases and four (4) fired bullets were recovered from the scene and body of DUNPHY (3.1, p. 3, 5; 3.10, p. 5-6). The R.C.M.P. Forensic Science and Identification Services Laboratory Report identified three (3) of the cartridge cases and all four (4) bullets as having been fired in/from the same Sig-Sauer pistol. The Report concludes that one (1) fired cartridge case was cycled through the action of the Sig-Sauer pistol (3.9, p. 3). As to whether or not the cartridge case was fired in the pistol, the Report does not offer an opinion and as such shall be treated as an inconclusive result.

The Sig-Sauer pistol is a semi-automatic firearm, which means that one fired cartridge case is ejected from the firearm for every bullet that is fired. Therefore, the recovery of four (4) fired cartridge cases and four (4) fired bullets indicate that four (4) gunshots were fired.

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

- 4.2 A bullet entered the west wall of the living room in a southwest direction, approximately 40 degrees from parallel to the west wall. The path of this bullet extends back from the bullet impact in the west wall to a point on the north wall approximately 1.16 meters from the east wall. This bullet path was approximately 10 degrees downward between heights of approximately 1.82 meters at the north wall to 1.05 meters at the impact in the west wall. The bullet path described is based upon reported observations of bullet path analysis performed by Sgt. Saunders and calculations from measurements reported in the notes of Sgt. Saunders (3.1, p. 4-5; 3.3, p. 3-4, 7-8).

The initial impact damage to the wall bears a well-defined partial elliptical shape and shows no indication of destabilization or deformation of the bullet as a result of an intermediary impact and is consistent with being a direct shot (3.5, photo "CWS\_0122"). The hollow point nose of the bullet reportedly recovered from this bullet path (3.1, p. 5) appears to have wood fibers embedded in it (3.6, photo "CWS\_0210") which is indicative of impacting the wall in a stabilized nose-first formation, and through a wooden stud, also consistent with being a direct shot. The bullet path of a direct gunshot indicates the approximate location of the firearm at the time of discharge.

The results of the bullet path analysis conducted by Sgt. Saunders were corroborated through application of the "trig-elliptical method of bullet impact angle determination"<sup>1</sup> using an image of the bullet impact in the west wall (3.5, photo "CWS\_0122"), the results of which were within 5 degrees of those determined by Sgt. Saunders.

<sup>1</sup> Barr, D. 2001: The Trig-Elliptical Method of Bullet Impact Angle Determination. AFTE Journal, Vol. 33, No. 2, pp. 122-124.

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

- 4.3 The bullet from the chair in which DUNPHY was located had been recovered in the filler material just beneath the exterior fabric cover (3.1, p. 5) and displayed significant impact damage (3.6, photos "CWS\_0215" and "CWS\_0216"). The described shallow penetration of the chair and the visible impact damage to the bullet are consistent with the bullet having struck an intermediary target prior to impacting the chair.

There was one (1) wound on the right side of the head of DUNPHY described as having "a configuration of an exit wound" (3.10, p. 5) and the bullet recovered from the chair was located in the top area of the chair to the right of center (3.1, p. 5; 3.5, photos "CWS\_0110", "CWS\_0113", "CWS\_0119"). Three (3) bullets and their corresponding impact damage or wounds have been accounted for, therefore, it leaves to reason that the bullet that exited the right side of the head of DUNPHY is likely the same bullet that was recovered from inside the chair, with the head of DUNPHY acting as an intermediary target to the chair. This association would account for one (1) gunshot bringing the total number of gunshots based on impact damage and wounds to four (4), which is further corroborated by the number of fired cartridge cases and bullets recovered.

- 4.4 The direction of the gunshot wounds into the body and head of DUNPHY are described as "front to back and left to right" with two of the three wounds further described as "down" (3.10, p. 5-6). If DUNPHY was seated or nearly seated in the chair in the living room at the time of the gunshots that caused these wounds, then these gunshots were fired in a southwest direction relative to the scene.

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

- 4.5 No projected gunshot residue pattern was reportedly detected around the areas of the bullet holes in the clothing of DUNPHY indicating that the gunshot that struck DUNPHY in the upper left chest area was fired from a distance of greater than 76 centimeters (3.9, p. 2-3) in the absence of an intermediary target. None of the evidence reviewed presented itself as a possible intermediary target to the gunshots that struck DUNPHY.

The distance between the west wall, against which the chair DUNPHY was reportedly seated in was located, and the east wall, where the fireplace mantle at which SMYTH reportedly began shooting from is located, is approximately 3.9 meters (3.3 p. 3).

No "powder tattooing" was reportedly observed around the entrance wounds to the body and head of DUNPHY (3.10, p. 5-6). "Powder tattooing", also known as stippling, on the skin is caused by unburned gunpowder particles projected from the muzzle of a firearm impacting and causing pinpoint abrasions on the skin. Stippling of the skin generally occurs from distances of greater than contact up to several feet. When present, stippling can be used to estimate the muzzle to target distance at the time of discharge. Due to the absence of stippling, the distance from which the two gunshots into the head of DUNPHY were fired cannot be determined.

- 4.6 The fired cartridge cases were located in the northwest corner of the living room (3.1, p. 3). A Sig-Sauer pistol by design usually ejects fired cartridge cases to the right and often, but not always, to the rear of the handgun during firing under ideal conditions. However, there are many variables in addition to design that can affect the ejection pattern of a firearm, such as firearm condition, ammunition type, position of firearm when discharged,

*DB*

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

movement of firearm during firing, the grip with which the firearm is held during firing and the presence of obstacles. For these reasons, the location of fired cartridge cases is not an accurate indicator of the exact location/position of a firearm/shooter at the time of discharge.

Variables that must be considered in this particular analysis are that the scene is a relatively small room containing many obstacles, the most significant of which are walls and furniture, the account of SMYTH that he was moving while firing and was possibly changing his grip on the pistol as it was being fired and the unknown ejection pattern of the particular subject pistol. Although the position of the firearm/shooter cannot be determined based on the location of fired cartridge cases alone, it would not be unusual for fired cartridge cases to end up in the general area of the north side of the living room given the account of SMYTH regarding his locations and direction of aim while shooting.

## 5.0 ELEMENTS OF THE ACCOUNT OF SMYTH

The following are specific elements of the account of SMYTH where the potential for physical evidence exists to either support or refute the account of the shooting.

### 5.1 Pertaining to the number of gunshots:

5.1.A "I believe I fired two shots at his center mass and a third at this head which was followed by a second to his head as I had felt the first head shot had missed" (3.12, p. 2).

5.1.B "I believe I had shot four times" (3.14, p. 16, line 19).

### 5.2 Pertaining to the location and position of DUNPHY when the gunshots were fired:

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

- 5.2.A "I'd have to say he's like – he wasn't out of the chair. Like he wasn't – he wasn't standing" (3.14, p. 50, lines 8-9).
- 5.2.B "But he was not fully upright ever at any point in time" (3.14, p. 50, line 21).
- 5.2.C "He stayed in that chair. He...once he sat down in that chair, which wasn't long after I arrived there" (3.15, p. 7, lines 8-9). "And that's where he stayed" (3.15, p. 7, line 11).
- 5.2.D "He was in a seated position in the chair in the living room and he started to, also I guess, come up out of the chair. And it's hard for me to say whether he was kind of gettin' ready to stand up or just sittin' up – upright..." (3.16, p. 1, lines 22-24) "...in the chair" (3.16, p. 2, line 1).
- 5.3 Pertaining to the locations and position of SMYTH when the gunshots were fired:
- 5.3.A With reference to the first gunshot, "Oh, I was right at the mantle... Yeah, I was. Yeah, I was right there. I'm just trying to give you a distance. I was definitely at the mantle" (3.14, p. 35, lines 13, 15, 16).
- 5.3.B "I was more, like, if...if I'm Mr. DUNPHY sat in the chair – (3.15, p. 4, line 25) I tended to be over this way, where...the left side being more visible and probably maximum in front of him..." (3.15, p. 5, lines 2-3).
- 5.3.C "So when I saw the firearm it was kind of out of my peripheral vision. I was stood up in the living room next to the fireplace mantle... (3.16, p. 1, lines 19-20).
- 5.3.D "I would venture to guess that my first shot probably from around here somewhere" (3.18, p. 12, lines 10-11). The corresponding 

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

BULLETPROOF  
FORENSIC  
CONSULTING  
File No.: 1501

- video (3.17) shows SMYTH standing directly in front of the north end of the fireplace mantle.
- 5.3.E "There was – there was a table there. And I was stood kind of back from that table" (3.14, p. 35, lines 19-21).
- 5.3.F "I think there was a coffee table there. And so I was behind that and at – well not even necessarily behind that. I think – so the table was right here...I was probably just to say the corner of the table might have been right here. I think I went behind it. I don't know which side of the table I went" (3.14, p. 36, lines 1-3, 5-6).
- 5.3.G "The second shot is fired" (3.18, p. 13, line 2). The corresponding video (3.17) shows SMYTH standing between the couch and the coffee table, near the armrest on the east side of the couch.
- 5.3.H With reference to the third gunshot, "To me, I raise and fire towards his head and I don't know if that shot hit...(3.18, p. 13, line 6). The corresponding video (3.17) shows SMYTH standing between the middle of the couch and the coffee table.
- 5.3.I "By the time the final shot was fired I was adjacent to him and then out of the room into the hall way" (3.12, p. 2).
- 5.3.J "I came over to the body and I – and I – I shot at his head and I don't know if I hit it. And as I'm still moving and I don't know if I hit his head and I – it's a second shot which I know connected. In the side of the head... - cause by this time I'm – I'm pretty much alongside of him now..." (3.14, p. 15, lines 2-7).
- 5.3.K With reference to the last gunshot, "...I get to about here and I'm still punched out and I (ahh) shot for his head again" (3.18, p. 13, lines 12-13) "...and within another instant, I'm out of the room...(3.18, p 13, lines 14-15). The corresponding video (3.17) shows SMYTH standing directly in front of the armrest on the west side of the couch. 

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

## 6.0 CONCLUSIONS AND OPINIONS

According to the account of SMYTH four (4) gunshots were fired in the direction of DUNPHY while DUNPHY was seated in a chair that backed against the west wall of the living room and was located immediately to the south of the living room entrance. SMYTH's account states that all four gunshots were fired while SMYTH was moving from an area adjacent to the north side of the fireplace mantle towards the living room entrance at the west wall. Given SMYTH's account of the relative positions of DUNPHY and SMYTH at the time of the gunshots and that he fired the gunshots in the direction of DUNPHY, then all four (4) gunshots would have to have been fired in directions between and including west and south (i.e. Due west, southwest to some degree or due south).

6.1 The account of SMYTH is supported by the following elements of physical evidence:

6.1.A The number of gunshots fired was determined to be four (4), which supports the account of SMYTH as to the number of gunshots he fired.

6.1.B A bullet was fired directly into the west wall of the living room and was fired from within an area that includes some of the area between the fireplace and the living room entrance, which supports the account of SMYTH as to the approximate locations of SMYTH when some of the gunshots were fired.

6.1.C The correlation between the location of the exit wound in the right side of the head of DUNPHY, the location of the bullet impact in the top of the chair and the condition of the bullet recovered from the chair support the account of SMYTH that DUNPHY was seated or nearly seated in the chair at the time of this gunshot. 

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING**  
File No.: 1501

6.1.D The directions of the gunshot wounds into the body and head of DUNPHY are consistent with the gunshots having been fired in southwest directions if DUNPHY was seated in the chair at the time of these gunshots (as demonstrated by Conclusion 6.1.C. for one of these gunshots), supporting the account of SMYTH as to the relative locations and positions of SMYTH and DUNPHY at the time of the gunshots.

6.1.E The distance between the muzzle of the pistol and DUNPHY is consistent with having been greater than 76 centimeters at the time of discharge for the gunshot that struck DUNPHY in the upper left chest based on the fact that no projected gunshot residue pattern was detected on the clothing. This supports the account of SMYTH that he was at the mantle of the fireplace when he began firing the first of two shots intended for the center of mass of DUNPHY as SMYTH moved towards the living room entrance.

6.1.F The location of the fired cartridge cases in the northwest corner of the living room does not eliminate the possibility of the gunshots having been fired in a southwest direction from the general areas of the living room in which SMYTH described he fired the shots.

6.2 No elements of the shooting related evidence were identified that refute the account of SMYTH.

6.3 There is often more than one scenario that the physical evidence may support. It is not the intent of this report to offer a definitive scenario of the events relating to the shooting death of DUNPHY. This report is intended only as a comparison of the physical evidence to one scenario provided and should not be interpreted as the only possible scenario. 

Client: RCMP "B" Division  
Client File No.: 2015-376186  
Report Date: February 8, 2016  
Report No.: 1 - amended

BULLETPROOF  
FORENSIC  
CONSULTING  
File No.: 1501

## 7.0 QUALIFICATIONS

My opinions are based upon the specifics of this case and my knowledge, skills and abilities obtained through specialized training and experience. I currently serve as Manager of the Forensic Firearms and Toolmark Laboratory of the Calgary Police Service, which I assisted in opening in 2011. Prior to this I worked as a Forensic Firearms Examiner for the R.C.M.P. National Forensic Services in Winnipeg and Halifax. Throughout the past 20 years I have examined and reviewed shooting and firearms related evidence and analysis on a regular basis. I have published, trained and spoken on the topics of shooting reconstruction and forensic firearms analysis throughout my career.

I am a member of the Association of Firearms and Toolmark Examiners (AFTE) and am independently certified by AFTE in the areas of *Firearms Evidence Examination and Identification, Toolmark Evidence Examination and Identification* and *Gunshot Residue Evidence Examination and Identification*. My curriculum vitae is attached.

## 8.0 DISCLOSURE STATEMENTS

The opinions in this document are based upon review of discovery documents (reports, notes, photographs and video) associated with this incident. It is assumed that the information provided to me is correct. If additional reports, information or items of evidence become available their review could be beneficial as it may affect the statements contained in this document.

I declare that the information contained in this report and its attachments is true and correct to the best of my knowledge, except for information that I have received from others. As for information that I have received from others, this report accurately describes the information provided to me. 

**Client:** RCMP "B" Division  
**Client File No.:** 2015-376186  
**Report Date:** February 8, 2016  
**Report No.:** 1 - amended

**BULLETPROOF  
FORENSIC  
CONSULTING  
File No.:** 1501

---

Submitted by,



Darryl G. Barr, B.Sc., FA/TM/GSR-AFTE  
Forensic Scientist  
Bulletproof Forensic Consulting

Enclosures: Curriculum Vitae