

Professor Eyal Wiseman
Forensic Architecture

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Dear Professor Eyal

Re. Investigation into the shooting of Mark Duggan (on-going re-opening assessment)

I write to confirm that I have finalised my decision regarding the potential re-opening of the investigation into the shooting of Mark Duggan.

Please find enclosed my final decision and annex which compares the expert opinions.

If you have any questions or would like to discuss my decision, I would be happy to ask my office to arrange a meeting.

Yours sincerely,



Sal Naseem
Regional Director for London
Independent Office for Police Conduct

IOPC decision on reopening investigation into fatal shooting of Mark Duggan

Introduction

In early 2020, the IOPC, were contacted by Forensic Architecture (FA). Forensic Architecture is a 'research agency, based at Goldsmiths, University of London' which 'undertakes advanced spatial and media investigations into cases of human rights violations...'¹.

Forensic Architecture interrogated various possible scenarios concerning the open questions surrounding the fatal shooting of Mark Duggan by a Metropolitan Police Service (MPS) officer known as 'V53' in August 2011, focusing particularly on how the firearm that Mr Duggan was allegedly holding at the time of the shooting could have arrived at the location at which it was later found.

On 12 February 2020, the IOPC attended the offices of FA where they presented their digital models reconstructing the hard stop and the moment Mr Duggan was shot. Following this, on 27 February 2020, the IOPC was provided with further reports from:

- Professor Derrick Pounder,
- Dr Jeremy Bauer,
- Dr Kostas Papagiannopoulos.

Forensic Architecture requested that we re-open our original investigation into Mr Duggan's fatal shooting on the basis that we had new information, the above reports, and their reconstruction.

On 16 December 2020, we wrote to the MPS, Forensic Architecture and the Duggan family providing them with the opportunity to send us any further evidence that they thought we should have as we consider whether the IPCC/IOPC investigation should be re-opened.

On 24 January 2021 the Duggan family provided us with the:

1. HST (in full) abstract of Ms. Amy Pullen
2. Overview report of Dr Duncan Woods

On 10 February 2021 the MPS provided us with the:

1. Report of Dr David Rouse
2. Report of Dr John Knottenbelt

Forensic Architecture did not provide us with any further documentation.

¹ 20.01.20 Report – the Killing of Mark Duggan by Forensic Architecture p4

The key findings from the IPCC investigation report which are relevant to this decision are:

Finding 20²

One bullet was found in the radio of W42 and one was found inside an orange Sainsbury's carrier bag located in the rear of the minicab on the floor between the driver and front passenger seat. Both bullets contained Mr Duggan's DNA but it is not possible to establish which bullet caused which wound to Mr Duggan or how one bullet got into the carrier bag.

Finding 21³

The IPCC investigation has not found material evidence to undermine V53's assertion that he had an honestly held belief: (1) that he saw a firearm in Mr Duggan's right hand and Mr Duggan's right arm beginning to move; and (2) that his life or that of his colleagues was in imminent danger. V53's first shot was aimed at Mr Duggan's central body mass and, because he still perceived the threat, he fired a second shot at Mr Duggan. These two shots occurred in rapid succession and in the context of V53's honestly held belief (as asserted) constituted the use of reasonable and proportionate force by V53.

Finding 23⁴

There is no credible evidence that JMA/1 [the firearm Mr Duggan was allegedly holding] was thrown or planted by the police. JMA/1 was found by either CO19 officer R31 or Z51 approximately 8 minutes after the shooting.

Finding 24⁵

The most plausible explanation for the location of the firearm, JMA/1, is that Mr Duggan was in the process of throwing the firearm, JMA/1, to his right as he was shot.

The IOPC process for considering such requests

In the interests of clarity, I consider it helpful to set out both the statutory basis and our own internal process for considering such requests to re-investigate concluded IPCC/IOPC investigations.

Legislative and Statutory framework

S13B (2) Police Reform Act 2002

(2) The [Director General]² may at any time determine that the complaint, recordable conduct matter or DSI matter is to be re-investigated if [the Director General]⁵ is satisfied that there are compelling reasons for doing so.

My role in this matter as Regional Director for London is to act as the delegated decision-maker, to consider and make a decision in relation to the above.

² The Fatal Shooting of Mark Duggan on 4 August 2011 p473

³ [The Fatal Shooting of Mark Duggan on 4 August 2011 p475](#)

⁴ [The Fatal Shooting of Mark Duggan on 4 August 2011 p480](#)

⁵ [The Fatal Shooting of Mark Duggan on 4 August 2011 p485](#)

Ops Manual Guidance on Section 13B Review process

Following the initial assessment, I was satisfied that the information provided gave sufficient reasons to believe that compelling reasons to re-investigate may apply. It was therefore necessary to move to the formal “review” stage of the re-opening process.

The IOPC Operations Manual guidance on the review stage provides:

“The person appointed to conduct the review will consider, whether, on examination of the original investigation and consideration of any alleged flaws or new information, a re-investigation is required.”

To find compelling reasons the decision maker must be satisfied that:

A. The original investigation was flawed in a manner which had a material impact on subsequent decisions on discipline, performance and/or referral to the Crown Prosecution Service (CPS);

and/or

B. There is significant new information that requires further investigation and a real possibility that the new information, had it been available, would have led wholly or partly to different decisions on discipline, performance and/or referral to the CPS;

and

C. It is necessary to require a reinvestigation in the public interest.

In applying this statutory framework and the guidance set out in our operations manual I must firstly consider whether the original investigation was flawed (as per condition A). To this end it is worth highlighting that the final report was extremely detailed and all parties to the inquest/investigation were given an opportunity to comment on its content in advance of publication. Only one minor factual error was identified and corrected. On this basis, given that there was no objections or issues with the investigation report, this condition is not met therefore cannot consider this as a ground to re-open.

Forensic Architecture proposed the original investigation be re-opened on the grounds of significant new information, B).

The questions I will therefore consider and look to answer are:

- 1) What is the nature of the new evidence presented by all parties?
- 2) In comparing this material to the existing findings and evidence - are there any new findings?
- 3) Do these new findings impact our original findings in relation to disciplinary and criminal matters?

Summary and consideration of the new information

1. Reports provided by Forensic Architecture

Professor Derrick Pounder

In Professor Pounder's latest report (2019) he reflects some of Finding 24⁶. Finding 24 stated:

"Professor Pounder's opinion, based on the assumption that Mr Duggan did have the firearm in his right hand at the time the first and second shots "were initiated", was that Mr Duggan would need to have thrown the gun to its final resting place more or less contemporaneously with the second shot being initiated or after the second shot."

"Professor Pounder concluded, "Taken in the round I cannot conceive of how Duggan might have thrown the gun to the place it was found, unobserved by the police, given his body position as reconstructed, his injuries and the evidence suggesting that he was collapsing to the ground. Since there are many factors to be considered in reaching such a view and since their evaluation is in some areas subjective I recognise that others could come to a different view when weighing this evidence."

The 2019 report by Professor Pounder shared similar opinions as those during the investigation. However in 2019, he ultimately concluded *"I cannot conceive how Mr Duggan could have thrown the Bruni gun forwards and to his right in an arc over fencing to where it is said to have been found, 8-8m away, using what would need to be an extended underarm throw."*

There are two identifiable points that may suggest Professor Pounder's 2019 opinion does not impact our original findings:

1. The family of Mr Duggan, within their instructions, asked Professor Pounder to prepare the report beginning with the assumption that Mr Duggan was not holding the firearm when he was shot. This is distinctly different to the IPCC who instructed Professor Pounder to prepare the report on the basis that Mr Duggan was holding the firearm at the time he was shot.
2. Professor Pounder, during the investigation, emphasised his opinion was subjective. This is reiterated by the fact Dr Seaman came to a different conclusion⁷.

By altering the starting point significantly, it is expected that a different conclusion would be reached. It is therefore difficult to compare the two findings of Professor Pounder (investigation and 2019 report).

Both V53⁸ and W70⁹ gave evidence stating that they saw the firearm in Mr Duggan's hand however nobody else gave evidence expressing that they saw this. The IPCC took these differing accounts into consideration and to that effect, sought expert

⁶ [The Fatal Shooting of Mark Duggan on 4 August 2011 p486](#)

⁷ [The Fatal Shooting of Mark Duggan on 4 August 2011 p402](#)

⁸ [The Fatal Shooting of Mark Duggan on 4 August 2011 p123](#)

⁹ [The Fatal Shooting of Mark Duggan on 4 August 2011 p165](#)

opinions on the instruction that he was holding the firearm as this was the account put forward by the V53 and W70. Ultimately testing whether it was scientifically possible for a firearm to have been thrown during the contact between the officers and Mr Duggan. Had there been no indication of Mr Duggan holding the firearm, the IPCC would have approached the instruction differently.

Therefore, this does not impact our original findings as the starting points were particularly different. The difference in this variable has little bearing on the original investigation.

Whilst Professor Pounder is a highly qualified expert, he does not offer anything that modifies the IPCC investigation findings evidentially. There remains a range of varying expert views as to whether Mr Duggan could have been holding a firearm or could have thrown a firearm at the time he was shot. This range of views is illustrated within the table in the Annex.

Professor Pounder offers an alternative opinion due to the starting point he was instructed to provide the expert report on.

Professor Pounder in his latest 2019 report¹⁰, does not draw on any new information. Whilst a new opinion can be considered “compelling” due to the credibility of the expert, in this instance I do not consider it to meet the criteria which assists in establishing ‘compelling reasons’. If the approach of obtaining opinions based on various starting points was to be adopted, then there are endless scenarios which a person may base their opinion on which would substantially alter the position.

It is my view that expert evidence, based either on new techniques and methodologies that were not previously available, or that which addresses different potential factual scenarios may be capable of constituting “significant new information” for the purposes of the compelling reasons test. ”

However, following careful consideration, it does not appear to me that these expert reports clearly undermine the original findings. While acknowledging the credibility and expertise of the writers I do note the varying conclusions they came to, based on the information available.

The second limb of this requirement necessitates that had this information been available at the time of investigation it would have led to different decisions on discipline and referral to the CPS. It is therefore necessary to consider if this report requesting Professor Pounder to base his opinion from a different starting point would lead to a different decision. It is my view that it would not for the following reasons:

1. This was a consideration that was available at the time and the starting point of his advice does not alter the evidential picture. The underlying evidence upon which Professor Pounder’s expert report is based, remains the same and the only

¹⁰[GRAPHIC_Prof-Derrick-Pounder-Report-on-the-Death-of-Mark-Duggan-22.06.19.pdf \(forensic-architecture.org\)](#)

reason, it appears, that a different opinion has been formed is due to a different starting point.

2. Whilst at the inquest, Professor Pounder did ultimately conclude that there was a chance that if someone was absolutely “determined”¹¹ they could throw the firearm. He also explained the biomechanical challenges a person would face in attempting to throw a firearm having been shot. At one stage Professor Pounder states that he “*personally cannot see how it happened*”.

As such, it appears throughout proceedings and the investigation Professor Pounder always considered that it would take significant effort to throw a firearm, therefore reducing the likelihood that the firearm was thrown. It is on this basis, that I do not consider this new opinion significant enough to alter any evidential picture or final decision from the IOPC. Outcomes were considered with great care and attention. It is a difficult case to assess as we continue to remain in the realms of likelihood and there is no certainty on either conclusion reached by either experts or the families.

Dr Jeremy Bauer¹²

Dr Bauer had not previously given an opinion on this case when he was instructed by Mr Duggan’s family for their civil claim. His field of expertise is biomechanics. The inquest and the IPCC report relied on biomechanics expert opinion from Professor Colonel Jonathan Clasper.

Both Professor Clasper and Dr Bauer agree that the firearm must have been deliberately thrown to the location where it was recovered, it could not have arrived there via an involuntary movement. Both agree that it was unlikely the firearm was thrown after Mr Duggan was shot due to the impact of the injuries.

Dr Bauer differs from Professor Clasper in that he considers it most likely Mr Duggan would have dropped the firearm, had he been holding it, when shot in the arm. Dr Bauer refers to research on temporary nerve damage caused by the impact of the bullet. Professor Clasper considered that the arm wound was not likely to cause immediate pain, leading to dropping the firearm, due to the impact of adrenaline¹³.

Both experts agree that the injury itself would not have affected the muscles required to throw the firearm. There is no particular reason to prefer Dr Bauer’s evidence over that of Professor Clasper.

Dr Kostas Papagiannopoulos¹⁴

Dr Papagiannopoulos concluded the following:

“(a) In my opinion, the deceased sustained significant chest injuries following a shot in the chest cavity.

¹¹ [The Fatal Shooting of Mark Duggan on 4 August 2011 p350](#)

¹² GRAPHIC_Dr-Jeremy-Bauer-Report-on-the-Death-of-Mark-Duggan-21.06.19.

¹³ The Fatal Shooting of Mark Duggan on 4 August 2011 p365

¹⁴ [Mr-K-Papagiannopoulos-Report-re-Mark-Duggan-28.06.19.pdf \(forensic-architecture.org\)](#) p9

(b) The through and through injury caused significant lung and aortic injury which lead into an acute shock and death within a couple of seconds.

(c) In my opinion, and on the balance of probabilities, the deceased would not have had the physical ability to throw the Bruni gun above the railing/fence/brick wall into the grassed area given the extent of injuries as well as his body and arm position at the time of injury”

Whilst this expert report could be considered ‘new’ as it offers a different opinion on the existing evidence, I note that a very similar opinion was reached at the inquest/investigation. This stated that the likelihood of Mr Duggan throwing a firearm after being shot was low¹⁵. Once again, Dr. Papagiannopoulos was asked to prepare the 2019 report on the basis that Mr Duggan was not holding the firearm when he emerged from the taxi. I also note that Dr. Papagiannopoulos’ opinion was “on the balance of probabilities”.

Based on this, had this report been available at the time of the investigation, I am not of the view that the outcome would have been wholly or partially different.

2. Reports provided by the Duggan family

Ms. Amy Pullen – HST (in full) abstract

A study at the University of Otago was carried out to establish the deviation of a projectile on a 4th rib, indicating that had the first shot been to the arm and the second to the chest. The relevance of the rib deviation is explained below.

The abstract of the study concluded:

“This investigation provides new insights into the influence of the ribs on deviation of the 9x19mm Federal HST projectile when fired from the MP5-SF and indicates that impact of the 4th rib has no significant effect on the projectiles line of fire and causes no significant deviation of the projectile.”

I note that the qualifications of Ms Pullen have not been included. In addition, this is only an abstract. Therefore, I must consider its potential limitations and take a cautious approach in deciding how much weight is placed on this.

Dr Duncan Woods Overview Report

Dr Duncan Woods provided commentary on expert evidence provided at the inquest.

In assessing whether Mr Duggan may have produced the firearm within the sock in the manner alleged, at the time he was shot, Dr Woods considered what types of forensically significant materials might have been transferred. He stated that it is unknown whether Mr Duggan may have carried the firearm in the sock, in a pocket, or in the waist band of his jeans (i.e. direct and probably frictional contact) or simply

¹⁵ The Fatal Shooting of Mark Duggan on 4 August 2011 p346

held it underneath his jacket (i.e. little direct contact with the clothing and no contact with pocket linings or the inside of the jeans waistband.)

If Mr Duggan did not have possession of the sock/firearm as alleged, then there would be an expectation to not detect any transferred materials. If Mr Duggan, simply had the sock/firearm under his jacket then the expectation would be little or no significant transferred materials, due largely to the absence of direct frictional contact between the sock and targeted surfaces of Mr Duggan's clothes.

If Mr Duggan had carried the sock/firearm inside a lower left jacket pocket, jeans pockets or his left waistband, this would have caused direct frictional contact as the sock was pushed into that location and possibly also by Mr Duggan's subsequent movement. In these circumstances there would be a reasonable expectation of some form of detectable debris transfer; and a failure to detect any significant transferred debris would to some extent be unexpected.

The types and amount of transferred debris would be highly dependent on the nature, duration and friction of any contact, which is unknown. If the sock/firearm would have been inside one of the pockets for a period, then perhaps the highest prospect would have been transfer and retention of constituent fibres and Type 3 GSR particles from the sock. If the sock/firearm had been jammed into Mr Duggan's jeans waistband, then the prospect of a transfer of a higher level of his DNA might have been greater (if the sock was in contact with his skin) or constituent fibres of his t-shirt if that was under the sock/firearm.

Dr Woods formed the opinion that it was surprising that there was a failure to detect any evidentially transferred material if Mr Duggan had carried the firearm; in the sock, inside of one of the pockets, or inside his left waistband area. Overall, given the uncertainties outlined in the report he concluded that the collective scientific findings do not assist one way or the other, with the issue of whether Mr Duggan produced the sock/firearm in the manner alleged.

These findings share similarities of those provided at the inquest which are detailed below.

The significance of the HST abstract and Dr Wood's overview report

Throughout the investigation, the Duggan family maintained and still maintain that the first shot had been to the arm and the second to the chest. They also maintained that the firearm was planted by the police. As part of our review process the IOPC provided the family with the opportunity to provide further evidence that they wished to be considered. As outlined above they provided two expert opinions stating the following:

- In relation to the transfer of fibres the, they noted that it was surprising to have failed to detect any evidentially significant transferred material if Mr Duggan had carried the firearm in the sock, one of the pockets of his jacket or inside his left waistband area.
- The order of the shots being first to the arm and second to the chest.

Below are extracts from Finding 19¹⁶ in the IPCC final report.

“Finding 19

- *The two shots were fired in rapid succession. One of the bullets hit Mr Duggan in the right arm and one bullet hit him in the upper right chest. The IPCC is not able to reach a conclusion about the sequence of the two shots.”*

The IPCC were unable to reach a conclusion regarding the order of bullets. Expert evidence was sought at the inquest:

“The evidence of Professor Clasper¹⁷ and Professor Pounder regarding the position of Mr Duggan’s right arm at the point he was shot in the arm could, if the evidence on the movement of Mr Duggan’s arm is accepted, indicate that Mr Duggan was more likely to have been struck in the right arm by V53’s first bullet, when his upper arm was likely to have been tighter to his body and his lower arm was more across his body. This would be contrary to V53’s recollection of the order of the shots.”

“Professor Pounder has formed the view that the first of V53’s two shots struck Mr Duggan’s arm and then the police radio of W42.

Professor Pounder repeated this view at the inquest and said that, whilst he agreed with Dr Poole¹⁸ that, from a purely pathological perspective it is not possible to determine which wound was received first, by putting the pathological information together with the other information, particularly the statements of the police officers, he concluded that the first shot was the shot to the arm (i.e. the non-lethal shot) and the second shot was the shot to the chest (i.e. the lethal shot).”

“Professor Clasper has stated that he cannot comment on what order the shots were fired in. His finding about the position of Mr Duggan’s right arm relates specifically to the instant one of the bullets hit Mr Duggan’s right arm.”

“Based on this information the IPCC were unable to comment on the order of shots.”

The new evidence provided by the Duggan family indicates the first shot was to the arm. There are varied views as to whether the arm wound would have caused Mr Duggan to be unable to throw the firearm¹⁹. The evidence around rib deviation is also relevant to the likely position of Mr Duggan’s body when the second shot was fired. Professor Pounder relies on this to inform his view on the sequence of shots that the arm shot was likely to be first on the basis Mr Duggan was most probably

¹⁶ The Fatal Shooting of Mark Duggan on 4 August 2011 p468

¹⁷ Professor Colonel Jonathan Clasper is a consultant orthopaedic surgeon and a Colonel in the Royal Army Medical Corps.

¹⁸ Dr Simon Poole conducted the first post-mortem examination of Mr Duggan at Haringey Mortuary. Dr Poole was the Home Office pathologist appointed to conduct the post-mortem on behalf of the Coroner.

¹⁹ See Annex summarising expert evidence in relation to finding 24

upright initially, then stooped when the second shot was fired. The evidence around whether Mr Duggan may have thrown the firearm is slightly separate but linked as some experts consider the severity of the fatal shot would have caused severe incapacitation therefore affecting his ability to throw the firearm.

The new expert reports do potentially further the evidential picture in terms of the order of the shots. From a pathological perspective all three experts (Poole²⁰, Pounder²¹ and Clasper²²) were unable to comment on the order of shots. Pounder's overall view was that the arm was shot first, however this was based on statements rather than pathological evidence.

While obviously recognising the inherently serious nature of the subject matter under consideration and the subsequent consequences, it is right to say this was not a significant issue during the IPCC investigation.

I say this in the sense that the IPCC investigation was unable to conclude which shot struck first but this did not prevent the IPCC investigation concluding that the most plausible explanation for the firearm being found over the fence was that Mr Duggan was in the process of throwing the firearm when he was shot. In other words, the order of shots was not a material factor in the IPCC investigation reaching Finding 24. If the evidence does suggest that the first shot was to the arm, that does not necessarily undermine Finding 24 (that he was in the process of throwing the firearm when he was shot) as this would have provided him with more of an opportunity to throw the firearm.

Overall, there is more evidence that Mr Duggan was able to throw the firearm despite his arm wound than ruled it out. However, some experts take the view that the incapacitating effect of the chest wound would have reduced the chance of Mr Duggan being able to complete the throw after that shot.

Therefore, this additional view, could arguably be considered as significant information however, the key point is that it would not alter the overall evidential picture. I am of this view as it is not sufficient or strong enough to discount the opinions of the previous experts or affect the IPCC conclusion. Therefore, it does not, wholly or partially change any misconduct outcome or referral to the CPS.

Finally, in relation to the report regarding the transfer of fibres, IPCC investigation Finding 9²³ states:

“Forensic examination confirmed the firearm, JMA/1, found on the grass next to Ferry Lane shortly after the shooting, was the BBM Bruni self-loading pistol contained within a black sock. There was no fibre, DNA or gunshot residue evidence linking Mr Duggan to the firearm. Two fibres found in the shoebox, GAJ/1, matched microscopically and had the same colour characteristics as fibres from the black sock covering the firearm. However, these were

²⁰ The Fatal Shooting of Mark Duggan on 4 August 2011 p325

²¹ [The Fatal Shooting of Mark Duggan on 4 August 2011 p486](#)

²² [The Fatal Shooting of Mark Duggan on 4 August 2011 p354](#)

²³ [The Fatal Shooting of Mark Duggan on 4 August 2011 p446](#)

classified as “common” textile fibres and therefore no reliance is placed on their presence.”

Comparing this finding to the report of Dr Duncan Woods, whilst Dr Woods provides a further / new expert report, this does not provide a different evidential aspect. The same opinions were offered at the inquest/investigation by Ms Anne Marie O’Connor.

At the inquest Ms O’Connor was asked questions by Mr Thomas QC. He raised the fact that the sock shed fibres easily and Ms O’Connor had stated that, if the sock had been in Mr Duggan’s pocket, she would have had “a reasonable expectation” of detecting fibres that could have come from the sock.²⁴ Further, she said that she might expect to find fibres from the sock in the jacket and the jeans if the sock had come in to contact with those areas. The same reasonable expectation applied to the inside left waistband of the jeans or inside the two front main pockets. Mr Thomas QC pointed out that the jacket had been “crawled over” looking for fibres and none had been found that matched the sock.

Mr Thomas concluded in questioning to Ms O’Connor (A.):

MR THOMAS: That's astonishing, is it not?

THE ASSISTANT CORONER: Is that a scientific word that you would use or would you say it's not matching your expectation?

A. Yes. I would consider my expectation of finding fibres, as I have said, based on what I would expect to find, given a direct contact and given what I know to have happened to the items.

MR THOMAS: Ms O'Connor, let's turn it on its head. You say that there would be a reasonable expectation of finding fibres. The fact that no fibres were found, turning it on its head, it's unreasonable. Bearing in mind the account that you had been given, it's unreasonable to have conducted all these searches and not to have found one single fibre.

A. There are no fibres found matching the sock and therefore there's no evidence to support that there had been a direct contact with the sock and the area searched.”

This extract from the final report clearly demonstrates that the relevant and important enquiries were made into the sock fibres and their transfer. There was comprehensive consideration of this point. Regarding Finding 9, the final report stated;

“Forensic examination confirmed the firearm, JMA/1, found on the grass next to Ferry Lane shortly after the shooting, was the BBM Bruni self-loading pistol contained within a black sock. There was no fibre, DNA or gunshot residue evidence linking Mr Duggan to the firearm. Two fibres found in the shoebox, GAJ/1, matched microscopically and had the same colour characteristics as

²⁴ [The Fatal Shooting of Mark Duggan on 4 August 2011 p392](#)

fibres from the black sock covering the firearm. However, these were classified as “common” textile fibres and therefore no reliance is placed on their presence.”

On this basis, this cannot be considered “significant new information” as similar, if not identical, expert opinions were sought and probed at the inquest. This does not add anything to the findings or conclusions of the IPCC therefore not leading to differing discipline or CPS referrals. We remain in the same position as Finding 9 which specified that, no fibres that could have reliance placed upon them were found.

3.Reports provided by the MPS

Dr David Rouse’s Report

Dr David Rouse was asked to provide his opinion on six questions. The two relevant in considering whether to re-open this matter are

- 1) *What impact would each of the shots had on Mr Duggan’s movement/ body position?*
- 2) *Would it have been possible for Mr Duggan to throw or complete a throw of the handgun to its resting position (if he was holding it) after the shot?*

In considering the first question, Dr Rouse formed the opinion that:

“Nothing as a direct effect of the passage of the projectile in terms of movement of the deceased.

Following impact by the projectiles, there may be loss of use of the biceps (arm wound) and rapid loss to unconsciousness. However, there could be a period of a few seconds of purposeful movement (potentially up to 10 seconds). In addition, there is effects of adrenaline (flight fight hormone released at times of stress which could increase the muscle strength as well as reducing pain perception).”

In relation to the second question, Dr Rouse, without further elaboration stated “Yes”.

Dr John Knottenbelt’s Report

Dr John Knottenbelt stated that “whilst it is possible, in my opinion that he could have been holding a firearm which he threw away, the medical evidence I have seen does not assist in determining whether in fact he did this or not”.

In relation to the trajectory of the bullets, the bullet entered on the right chest just above the nipple, hit the right 4th rib then diverted backwards and downwards across the right chest towards the left, injuring lung and exiting the left lower chest at the back causing the fatal injury to the aorta. It was his opinion, the expansion of the bullet caused impact with the 4th rib. This impact deflected the bullet off its original straight-line path which would otherwise have been at an angle of only 10-15° down

across the right upper middle chest. The bullet could have started tumbling at this point, further aggravating the damage caused en route.

Dr Knottenbelt concluded that neither shot affected the bones of either arm, or spine, brain nerves or throwing muscle therefore making it possible for Mr Duggan to throw or complete the throw of the firearm to its resting position.

Significance of the Dr Rouse and Dr Knottenbelt reports

They both maintain that it was possible for Mr Duggan, after being shot, to throw the firearm to where it was found in its final resting place. Both concluded, that ultimately, whilst there was debilitating damage caused to Mr Duggan, there was a period of up to ten seconds after the shots, where he would have been able to throw the firearm to its final position.

Both these reports are new information, that again do not alter the existing evidence. They also do not satisfy the compelling reasons criteria. In fact, they support the IPCC findings and the evidence provided at the time of the inquest.

Finding 23 of the IPCC Investigation Report

“There is no credible evidence that JMA/1 was thrown or planted by the police. JMA/1 was found by either CO19 officer R31 or Z51 approximately 8 minutes after the shooting.”

Forensic Architecture, raised the point that within the footage, the officers move out of sight for a period of time during which there may have been a possibility to move or throw the firearm to its final position on the grass area.

There are two possibilities:

- 1) That Mr Duggan threw the firearm.
- 2) The police threw or planted the firearm.

In the absence of any positive evidence, it is difficult to say with any certainty what occurred during that gap where the officers were out of sight.

There is no credible evidence to undermine that CO19 officers R31 or Z51 did find the firearm. That there was an opportunity for the firearm to be planted or thrown, does not mean that it was. There is no evidence to suggest this, beyond a gap in time where the officers were out of sight. It would be unsafe to make assumptions of potential scenarios that could have occurred within this gap. There has been no credible evidence to undermine Finding 23.

The basis of the investigation into the potential of the firearm being thrown by the police is based on the witness evidence from Ms J. It is important to note that this is not new evidence.

Ms J was a witness who gave evidence at the time of the investigation and the trial of Kevin Hutchinson Foster who, following a retrial, was convicted in 2013 of providing the firearm to Mr Duggan in August 2011. She initially stated she saw an officer running on the pavement with a firearm in a clear plastic bag wrapped in a black cloth however she later changed her account. She was also clear during the interview that she had not actually seen the police officer inside the minicab. Ms J was not called back to give evidence at the second trial.

Forensic Architecture suggested that the IPCC did not fully consider the possibility of whether the firearm may have been moved by the police, this is not the case. The family submitted a complaint alleging that the firearm was moved. This was fully investigated and considered by the IPCC investigation and it was also explored at the inquest.

Conclusion

In concluding, I will return to address the three key questions which I set out to consider and answer at the outset of my decision:

1) Is there anything in the new reports that suggest our findings were incorrect or that undermine our findings?

As set out above, the key findings which Forensic Architecture have disputed or seek reconsidering is Finding 24 which relates to Mr Duggan's ability to throw the firearm to where it was found. Essentially, there are two views, one being that there was a period of up to ten seconds from the shots to incapacitation when Mr Duggan would have been able to throw the firearm. The opposing view is that he would have been incapacitated thereby being unable to throw the firearm. All the experts that have opined on either side are all entirely credible and thoroughly consider and assess all the evidence available, as did the IPCC/IOPC at the time of the inquest and currently, in considering whether to reopen.

Another finding which was central to Forensic Architecture's request was Finding 23. As explained above, the basis of this assertion was a gap in footage and claims made by a witness.

Ultimately, we find ourselves in the same position that we did in 2013. We are still considering likelihoods and coming to balanced and reasoned conclusions on this basis.

2) If so, does that suggest the decision on disciplinary/criminal was incorrect?

After careful consideration, the answer to this is no.

3) If not, then we are not required to go through re-opening or reinvestigation

On this basis, and for the reasons I have set out above, I am not of the view that the test for 'compelling reasons' is met. Therefore, after careful consideration it is my decision that it is not appropriate to re-investigate this matter.

ANNEX: Comparative table of 2019 expert reports

<p>Finding 19 The two shots were fired in rapid succession. One of the bullets hit Mr Duggan in the right arm and one bullet hit him in the upper right chest. The IPCC is not able to reach a conclusion about the sequence of the two shots</p>		
Expert and date of report	Field	Findings
Professor Pounder 22.06.2019	Forensic medicine	Likely sequence can be inferred from the likely position of MD when shot. Probable position can be determined from trajectory of bullets and bullet damage to clothing. On basis MD likely upright when shot in arm, and bent over and twisting against likely direction of movement when shot in chest (suggesting stumbling), concludes likely shot in arm first then chest [35 – 37]
Dr Knottenbelt 28.06.2019	Emergency medicine	Bullet passage through the body affected by deflection from the 4 th rib [p6] Dr K finds MD likely to be more or less upright when shot in chest
Dr Rouse 04 July 2019	Forensic medicine and pathology	Possibility, or even probability, of deflection cannot be discounted. Study cited by Dr Seaman (3 samples) not statistically significant. Competing view to the literature cited by Professor Pounder that deflection can occur, and degree not predictable. No disagreement with the leftward / downward trajectory, but may be less than the range of 30 to 45 degrees estimated [6.2.3.3 – 6.2.3.4]

<p>Finding 20 One bullet was found in the radio of W42 and one was found inside an orange Sainsbury's carrier bag located in the rear of the minicab on the floor between the driver and front passenger seat. Both bullets contained Mr Duggan's DNA but it is not possible to establish which bullet caused which wound to Mr Duggan or how one bullet got into the carrier bag.</p>		
Expert and date of report	Field	Findings
Professor Pounder 22.06.2019	Forensic medicine	Tomei ballistic assessment 'flawed': Tomei's reasoning based on 'slit like' exit wound being incompatible with diameter of mushroomed bullet. Does not take account of pathology of exit wounds. Slit like wounds can accommodate mushroom bullets. Known ballistics of ammunition used suggest they turn sideways when lose energy [15]

		Comparative energy and damage bullet in bag vs bullet in radio assists in identifying which bullet caused which wound [16]. Tests by Dr Seaman also suggested bullet leaving chest wound did not have enough energy to pierce radio [17]
Dr Rouse 04 July 2019	Forensic medicine and pathology	Assessment of arm wound trajectory assumes that this bullet hit W42 radio [6.2.2.1]

Finding 21

The IPCC investigation has not found material evidence to undermine V53's assertion that he had an honestly held belief: (1) that he saw a firearm in Mr Duggan's right hand and Mr Duggan's right arm beginning to move; and (2) that his life or that of his colleagues was in imminent danger. V53's first shot was aimed at Mr Duggan's central body mass and, because he still perceived the threat, he fired a second shot at Mr Duggan. These two shots occurred in rapid succession and in the context of V53's honestly held belief (as asserted) constituted the use of reasonable and proportionate force by V53.

Expert and date of report	Field	Findings
Duncan Wood 1 August 2019	Forensics (overview)	Forensic evidence does not assist in establishing whether MD produced the gun as alleged. The lack of transferred fibres / DNA / GSR / fingerprint are all consistent with MD not having gun, or holding it under his coat. The absence of findings may be less expected if MD was said to have held gun in pocket or in waistband of jeans, however this is less conclusive in circumstances where the case information does not suggest prolonged or significant frictional contact with the gun in the pocket or waistband.
Dr Rouse 04 July 2019	Forensic medicine and pathology	[Could MD be holding a gun in his right hand pointing it forward when right arm shot] The degree of extension at the wrist is limited and would not allow for a directly forward pointing firearm (at the time of impact into the arm) but the perception could be of the hand coming into the forward firing position.

Finding 23

There is no credible evidence that JMA/1 was thrown or planted by the police. JMA/1 was found by either CO19 officer R31 or Z51 approximately 8 minutes after the shooting.

Expert and date of report	Field	Findings
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Forensic Architecture	Multidisciplinary	<p>Analysis of imagery (Witness B) footage: due to insufficient quality of footage, it cannot be used as positive evidence that the officers did not move the gun (if they had done so, the footage was not clear enough for this to be seen).</p> <p>Due to blindspots in the footage, it similarly cannot be used as positive evidence that officers did not go into the minicab [p33 – 34]</p> <p>Gap in footage not identified in IPCC investigation [p41-43]</p>
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Finding 24		
<p>The most plausible explanation for the location of the firearm, JMA/1, is that Mr Duggan was in the process of throwing the firearm, JMA/1, to his right as he was shot.</p>		
Expert and date of report	Field	Findings
Amy Pullen 2019	Abstract only – qualifications not listed	Testing on porcine ribs using same ammunition and velocity of MPS firearms suggests impact does not cause deviation
Dr Jeremy Bauer 21.06.2019	Biomechanics	<p>Distance likely to have to throw gun 6.2m (based on likely location, and arm movement required). Speed required 6.7m/s, angle between 31 and 40 degrees [20]</p> <p>Bicep injury itself would not have precluded MD throwing the gun, however temporary nerve damage caused by impact of projectile likely to have caused MD to drop the gun if he had been holding it when shot in arm. [23]</p> <p>Semi jacketed bullets are deformable and used to cause instant incapacitation. Hits causing massive bleeding, and thus decrease the functioning of the central nervous system, is one of 2 reliable ways to produce incapacitation. The chest bullet severely damaged MD's thoracic aorta. Dr Poole gave evidence instantaneous incapacitation would occur with the chest shot. MD may have been able to maintain consciousness for up to 4 seconds after the shot, the substantial damage to his thoracic aorta, lungs and other internal structures meant he was unlikely to have been able to toss a gun [24]</p>

		The swinging motion required to get the gun to the location it was found would have been easily visible to anyone in front or behind of MD [25]
Professor Pounder 22.06.2019	Forensic medicine	<p>Damage to the bicep would make use of the muscle painful but not impossible. Would not limit an extended arm palm down throw of the gun [38]. Superficial chest injury (bullet graze) would cause a person to feel winded but still capable of voluntary action such as throwing the gun [38-39]</p> <p>Vigorous activity in the 4 to 10 seconds before loss of consciousness due to loss of blood to the brain is possible where that is the only injury [40]. In addition to the blood loss caused by the bullet severing the aorta, MD also sustained extensive chest trauma including lung damage that would prevent effective breathing. The cavity effect of the bullet would also cause intense pain as it displaced tissue [41 to 43]. Taking these points with MD's body position (bent forwards, stumbling), the reports of near immediate collapse following the 2 shots, Prof Pounder 'cannot conceive' how MD could throw the gun following 2nd shot. No witness evidence of throwing movement by officers with direct line of sight of MD's hands supports this.</p>
Mr K Papagiannopoulos 28.06.2019	Thoracic surgery	<p>Combination of injuries, including acute haemorrhage, would lead to collapse and death within a couple of seconds [4.10].</p> <p>Ability to perform physically was significantly compromised [4.11].</p> <p>Pain caused by the hollow point bullet producing cavity effect would increase incapacitating effect to detriment of physical ability [4.12 – 4.14]. In particular, damage to parietal pleura (chest cavity lining) causes excruciating, intense pain [4.15 – 4.17]</p> <p>On balance of probabilities, MD would not have had the time and physical ability to start, execute and complete such a throw as to toss the gun over the fence a distance of 7 to 8 metres [4.18]</p>
Dr Knottenbelt 28.06.2019	Emergency medicine	<p>Loss of consciousness likely within 10 seconds at most [4.1, p5]</p> <p>Size of injury to aorta suggests the bullet expanded before impact, Dr K attributes this to the impact with the rib [p6]</p> <p>MD could have been holding a gun [4.4, p10]</p> <p>It would have been possible for MD to throw or complete a throw of the gun as neither shot affected the bones or either arm, or injured his brain, spine, nerves or throwing muscles. The</p>

		window of opportunity would be from the opening of the taxi door to a maximum of 5 seconds following the shot to the chest [4.6, p10]
Dr Rouse 04 July 2019	Forensic medicine and pathology	There could be a period of a few seconds of purposeful movement (potentially up to 10 seconds) [following impact of projectiles]. In addition the effects of adrenaline (increasing muscle strength and reducing pain perception) must be taken into account. Taking this into account, it would have been possible for MD to throw or complete a throw of the handgun after the shot. [6.6]