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THE JOURNAL OF HOMICIDE AND MAJOR INCIDENT INVESTIGATION

The aim of *The Journal of Homicide and Major Incident Investigation* is to encourage practitioners and policy makers to share their professional knowledge and practice. The journal will be published twice a year by the National Policing Improvement Agency (NPIA) on behalf of the Association of Chief Police Officers (ACPO) Homicide Working Group. It will contain papers on professional practice, procedure, legislation and developments which are relevant to those investigating homicide and major incidents.

All contributions have been approved by the Editorial Board of the ACPO Homicide Working Group. Articles represent the operational experience or research findings of individuals which may be of interest to Senior Investigating Officers. The views expressed in each article are those of the author and are not representative of the NPIA, nor of ACPO. Unless otherwise indicated they do not represent ACPO policy. Readers should refer to relevant policies and practice advice before implementing any advice contained within *The Journal of Homicide and Major Incident Investigation*.

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In memoriam Dr Sally Pearson

It is with great sadness that we announce the death of Dr Sally Pearson, Editor of the Journal. Sally, 34, died following a long battle with breast cancer. Sally established the Journal back in 2005, which she edited from its creation until the edition which came out late last year.

As well as establishing and editing the NPIA Journal of Homicide and Major Incident Investigation, her many achievements include the revision of the ACPO Murder Investigation Manual (MIM), the development of the SIO Gateway site on Genesis and contributions to professional practice on criminal investigation.

Sally's inspiration, enthusiasm, determination and leadership will be greatly missed by the Journal Editorial Team, colleagues at NPIA and all those who had the pleasure of working with her.

A handwritten signature in black ink, consisting of a large, stylized 'P' followed by a horizontal line and a small vertical stroke.

Dr Peter Stelfox



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Linked Series Stranger Attacks and Homicide: The debrief of Operation Yeaddiss and related offences

Detective Superintendent Mark Jackson
Metropolitan Police Service

Abstract

Operation Yeaddiss is a series of linked stranger attacks and homicides investigated by the Metropolitan Police Service (MPS). This was a highly complex investigation commencing in 2003 and concluding in 2008 following the conviction of Levi Bellfield at the Central Criminal Court. The investigation brought together a number of offences of murder and grievous bodily harm. All of the victims were young lone females.

This article provides practitioners with a detailed overview of the issues that were explored during a debrief involving many officers and staff from across the MPS, other forces and key partner agencies. The article sets out the MPS experience and learning, however, other forces may have experienced similar issues or may benefit from the MPS experience of Operation Yeaddiss. Examples of good practice and issues for further development for the MPS are outlined.

Commander Foy, ACPO head for the MPS Homicide and Serious Crime Command, is currently assessing the findings while the next steps are agreed.

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1 Introduction

It would be difficult to envisage a more devastating scenario whereby a stranger on the streets of London was attacking young lone women. Two of these young women, Marsha McDonnell and Amélie Delegrange, were murdered (see Table 1 for the list of offences that Levi Bellfield was subsequently charged with). The offences occurred within a small geographical area in West London. The sheer scale of the offences resulted in significant media coverage with the understandable pressures to bring those responsible to justice.

Table 1 Offences of murder and grievous bodily harm Levi Bellfield was charged with

Victim	Offence date
Jessie Wilson	08.01.03
Harriet Wharton	03.02.03
Marsha McDonnell	04.02.03
Dawn Brunton	05.11.03
Imra Dragoshi	16.12.03
Edel Harbison	18.04.04
Kate Sheedy	06.06.04
Amélie Delegrange	19.08.04

As greater understanding of the offences developed it became apparent that due to the scale and complexity, no single Major Investigation Team (MIT) could resource such an investigation on its own. As such, colleagues from across the entire MPS were brought together in large numbers, in a coordinated operation. Police officers and police staff combined their collective expertise to investigate and manage all aspects relating to this series of violent offences under the umbrella of Operation Yeaddiss. The determination and tenacity of all those involved ensured that the offender, Levi Bellfield was identified and successfully brought to justice.

As the judicial proceedings came to a close it was clear that an opportunity existed to shape the policing response to homicide both within the MPS and nationally. To ensure that maximum learning was obtained, a debrief programme was conducted with police officers and support staff involved in Operation Yeaddiss across key areas of the investigative process.

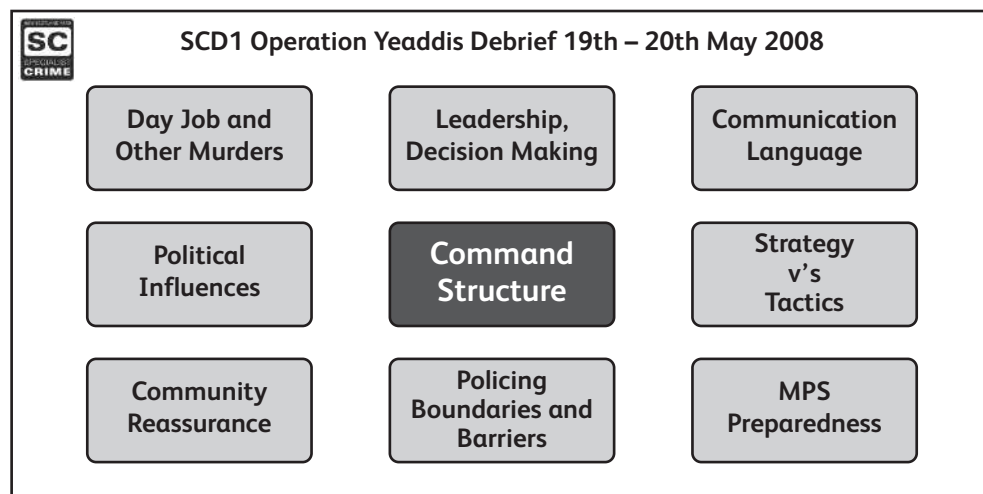
2 Methodology

Structured debriefing, facilitated by trained practitioners is widely recognised as a simple and effective method for reviewing and learning from experiences. Each participant has an equal input (there are no barriers of rank or seniority) which allows an uninhibited flow of ideas. It is extensively used by public, private and voluntary sector organisations to monitor and develop performance within organisations. The debrief process discourages group problem solving or decision-making. The interpretation of the collective debrief is achieved through analysis of the information from a series of debriefs within a pre-determined framework. The devised framework for the debrief of Operation Yeaddiss examined performance across the following key areas:

1. Strategic preparedness;
2. Command and Control;
3. Investigation;
4. Human resources;
5. Logistical issues.

In accordance with the ethos of structured debriefing, the aim was to identify effective areas of operation as well as those that were less effective. Areas of effective performance will be commended to the reader as good practice while areas of less effective performance will be listed as a recommendation. The nature of the debrief process is such that not all recommendations will apply universally across the MPS or UK policing. The inclusion of recommendations will indicate a recurring theme highlighted throughout the debrief. It is for the sponsor of this work to consider the merits of the recommendations within the framework of existing policies and strategic plans.

Each debrief interview had a bespoke framework which assisted the participants. Figure 1 is an example of the framework for command and control.

Figure 1 Areas covered within Command and Control

The debrief took place on the 19-20 May 2008. The following sections detail the key findings for each of the five key areas covered by the debrief (strategic preparedness, command and control, investigation, human resources and logistical issues).

3 Strategic Preparedness

3.1 Background

Since Operation Yeaddis commenced, the homicide investigative response of the MPS has undergone considerable change and restructuring. The vast majority of homicide assets are now located within a single Operational Command Unit (OCU) and the remit has been widened to include serious crime. This provides both increased flexibility and resilience when faced with the most challenging investigations.

3.2 Leadership

The investigation of linked stranger murder investigations are thankfully rare, however, it is of the utmost importance that the MPS is prepared when such events occur. The events surrounding Operation Yeaddis highlighted issues at all levels of the organisation. Due to the critical nature of the policing response both in terms of retaining the confidence of the victim's families and wider public confidence, high level management structures were implemented to oversee the investigation and other key issues.

Many different officers at ACPO level played a role over the three years that it took to bring Levi Bellfield to justice. Issues relating to chief officer involvement and management was raised by participants of all ranks during the debrief. These issues can be broken down into the following areas:

- Lack of clarity of role and/or responsibility. The outcome of this was confusion, duplication and gaps in lines of supervision and communication.
- How are chief officers prepared and trained to lead such significant incidents? Work is being progressed within the Professionalising Investigation Programme (PIP) Level 4 which is being developed by NPJA.
- Do chief officers need a hands-on role?
- Is there any identified best practice on whether Territorial Policing (TP) or Specialist Crime Directorate (SCD) ACPO officers lead on such matters?
- Due to the thematic command structures within the MPS, is this a crime-based responsibility or is it a wider local community concern? All crime occurs in somebody's local neighbourhood.

3.3 Resourcing

The resourcing of this category A+ investigation provided a great deal of learning for those involved in the management of Operation Yeaddiss. Additional staff were provided through the SCD tasking and coordination meeting. Day-to-day difficulties were experienced both with these officers and their home OCUs. This was an unnecessary distraction in a new, fast moving investigation. Time has since moved on and the Homicide and Serious Crime Command has been created with internal processes that should be sufficiently robust enough to support such investigations in the future.

3.4 Training

All those involved in the management of homicide investigation have completed senior investigating officer (SIO) training and accredited at PIP level 3. The issue of ongoing professional development at a practical level is an area where consideration could be given. Many other specialist areas have developed training strategies, for example the Crime Academy recently ran a senior identification manager's (SIM) HYDRA-based training

exercise. The MPS holds SIO seminars, which provide the opportunity to share good practice. However, more work needs to be carried out on the training of senior detectives who perform the role of Gold Commander in respect of:

- Critical incident development;
- Learning from major events (eg, 'turnmills');
- Roles and responsibilities;
- Road testing systems and readiness.

While many SIOs may have attended the management of linked serious and series crime course (MLSC), which provides an understanding of the national approach, it would be beneficial to ensure that there is in-house training to ensure that both staff and systems are appropriately tested and prepared.

3.5 Relationships with neighbouring forces

Operation Yeaddiss had overlaps with another investigation being conducted by Surrey Constabulary. Views were expressed around the possibility of linking and more collaborative working on both investigations. Putting aside the specific issues of this investigation, an area where the MPS may wish to pursue is the development of stronger relationships with neighbouring forces. The MPS, being a single ACPO region, may not encourage the ongoing interaction with surrounding forces that constabularies within their region may have, due to regular meetings at a local level below the ACPO Homicide Working Group. This may be particularly relevant with the growing collaboration between constabularies within protective services. Strong alliances, relationships and trust are crucial at times of pressure and developing stronger ties will assist this.

3.6 Recommendations

- To assist in clear roles and responsibilities it would be beneficial to review the role of chief officers within major investigations.
- To consider developing a training strategy for the ongoing development of SIOs, MIT managers, homicide and serious crime command OCU commander and ACPO who may be required to perform a role within a category A+ investigation.
- The MPS homicide lead to consider closer liaison with neighbouring forces.

4 Command and Control

4.1 Background

There are a number of overlaps between command and control and that of strategic preparedness. However, it was felt that command and control was such an important area that it should be commented upon separately. As described above, a command structure which supported the investigation was developed for the purposes of this operation. This was drawn together through a Gold group in line with existing good practice.

4.2 Command structure

With such a complex series of events and offences it is not surprising that the Operation Yeaddiss command structure was equally complex. Numerous management roles were confused, with individuals not clear on the elements of the investigation they had responsibility for. Concerns were raised around the linkages between detective chief superintendent of SCD1(2) and the ACPO lead and where, if anywhere, the MIT manager fitted into the command structure.

Clarity around management roles and responsibilities is crucial to ensure that the SIO and their investigation are properly supported rather than the other way around. Progress has since been made in planning for future category A+ investigations with more clarity around command responsibilities. This has yet to be tested in the operational arena. It would, therefore, be appropriate, for the agreed structure and the related roles and responsibilities to be formally agreed and published as part of the *MPS (2008) London Homicide Manual*.

4.3 Gold group

Operation Yeaddiss was a long-term investigation spanning over three years and that in itself brought a number of challenges. Of particular note, were the many changes in staff from Gold downwards. This caused confusion and changes in the understanding and emphasis of previous decisions.

The lack of continuity at chief officer level was further exacerbated by confusion around decision making. Decisions made outside meetings often lacked an audit trail when subject to later review. This could be resolved by the use of decision logs, however, it is important to ensure that there is differentiation between these decisions and those documented in the SIOs decision log. The purpose is not to create a 'super' SIO decision log and would therefore require consideration by the decision maker on the most appropriate manner to

record their decisions. The critical issue is to ensure that there is an audit trail and that all decisions enter the HOLMES account from a source document.

During the debrief the role of particular individuals were discussed. During the early days of the operation, former DAC Griffiths was highlighted as showing strong leadership qualities, gripping the key strategic issues and making clear decisions. As an individual he was highlighted as a critical success factor during this period. DAC Griffiths was a very experienced detective who has dealt with some of the most difficult investigations that UK policing has faced in recent years, (eg, Lawrence and Climbie) and related public enquiries. This experience, and the value that can be brought to bear, should not be lost to the MPS or those appointed as Gold Commander to subsequent high profile, complex investigations.

4.4 Managerial roles

In the same way that changes in senior management roles caused issues at chief officer level, a similar problem occurred within the investigation team. Of particular concern were the numerous changes of the deputy senior investigating officer (D/SIO). The D/SIO role was performed by five different individuals. It was clear that this was an issue for the team, and while some of the changes could not be avoided, the extent of change was unsatisfactory and not consistent with the smooth running of the team and the investigation. It must also be recognised, however, that senior managers will have the ultimate decision on personnel issues, taking into account the bigger picture and strategic position of the OCU. While long-term investigations will inevitably require changes due to a turnover of staff, a balance needs to be struck between individual and organisational needs. This issue and the impact on those officers who remained on the investigation, is discussed further in section 6 Human Resources.

4.5 Murder review process

As the investigation reached the twenty-eight day stage it remained unsolved and therefore the review process was instigated. A number of issues and concerns were raised regarding the review process, including the development of terms of reference and the extent of the review. In essence the whole of the investigation was subject to review. The impact of this imprecise approach caused a significant time delay in completing the review. In addition, the review commenced at a time when the investigation was moving at a fast pace and the consequences of this were that a number of the review recommendations were irrelevant. This raised the importance of focus and accuracy if a review is to maximise its potential in supporting the SIO.

The relationship between the investigative team and the review officer is important for ensuring that:

- Issues identified are shared immediately;
- Openness and transparency occurs between the review officer and SIO.

In category A+ cases the appointment of a review officer from the outset would provide significant benefit to both the investigation and the organisation, which would result in the:

- Review officer being fully informed throughout;
- Reduction in the time taken to complete the review;
- Provide a consistent critical friend for the investigation.

Following the completion of the review, problems were experienced in holding a review meeting due to the volume of people whose attendance was required. When the meeting was finally held many months later, a strategic issue was raised regarding who should chair it. Following a certain amount of prevarication, a decision was taken that a commander who had no previous knowledge or involvement should chair the meeting. A number of those involved did not believe this was appropriate. Previous meetings for unsolved homicide reviews have been chaired by the DAC SCD.

4.6 Media management

The issues of linked stranger homicide created a constant call from the media for updates from the investigation team. This had the potential in the early days of the investigation to overwhelm the SIO when dealing with many critical issues. To address this, a dedicated media spokesperson was appointed. This was deemed a great success by all involved, most importantly by the SIO and the media. In adopting this approach the media strategy ensured that:

- The investigation was not compromised;
- The SIO could focus on the critical business of the investigation.

The factors for success were beyond an individual dedicated to this role, additional requirements included detailed knowledge of the investigation, combined with an experience and appreciation of homicide investigation.

Many of the officers involved in the investigation expressed great support for the work that was conducted in managing the media. Concern was, however, expressed that the

Directorate of Public Affairs (DPA) plan was not able to respond to the significant demands of investigations of this scale. This was supported by DPA staff. Like all plans they need to be exercised to ensure they remain fit for purpose and that the resources and people are all suitably prepared to respond when required. It is, therefore, recommended that as part of the Homicide and Serious Crime Command's contingency planning, joint work could be arranged with DPA to test and fine tune the MPS media management response.

4.7 Previous investigations

A number of other investigations were taken on as part of the broader Operation Yeaddis investigation. These offences included the murder in 2003 of Marsha McDonnell (Operation Upwey) which was a significant and critical investigation in its own right. Representatives from these investigations were also debriefed. It is interesting to note that similar issues were raised.

The management of large investigations on Borough Operational Command Units (BOCU) was a concern expressed by many of the territorial policing representatives. This concern focused on a lack of formal systems to manage the volume of evidence emanating from a serious crime. Different approaches were used which highlighted a corporate issue. The CRIS Case Management Project may in future provide a solution to this issue. However, at present it has not been fully tested and a corporate approach to managing significant enquiries on this system is yet to be developed.

Concerns were also expressed regarding the investment of resources into BOCU investigations. Significant changes have taken place within territorial policing since these issues were experienced. In particular, greater focus is now given to serious assaults. However, all those debriefed accept that resources will always be an issue and it was considered good practice that BOCU contingency planning should include consideration within their business continuity plans on how they will respond to significant investigative demands, while continuing to respond to the range of other policing demands.

4.8 Structures

Similar issues regarding command structure and the roles and responsibilities were also raised for Operation Upwey, which was supported by a Gold group structure. The issues raised included:

- The role of ACPO;
- The role of MIT manager.

The response to these issues fits with the recommendations already made in section 3.2 Leadership.

4.9 Experience

Organisational concern regarding the lack of detective experience within BOCUs was highlighted. Exposure at all levels of the investigation of serious stranger crime is not embedded within BOCUs. Additionally, there is a high level of senior detective management personnel made up of officers who have laterally transferred to the detective branch. This is not highlighted as a criticism but to raise the debate regarding whether the right systems are in place to develop detectives so that they gain the most experience, ensuring the high quality leadership that our staff deserve and the high quality service that our victims deserve. Clearly there are no simple or quick answers to this question. However, it is equally not something that should be avoided. The view of those involved, suggested that this could be initiated by a project linking into Territorial Policing and the Specialist Crime Directorate. Assistant Commissioner John Yates now chairs the Detective Modernisation Programme and this may be the most appropriate forum for this matter to be considered.

4.10 Good practice

The following areas of good practice were identified:

- Excellent media management and interaction with media partners;
- The appointment of a dedicated media spokesperson, who was fully briefed on the investigation and experienced in homicide investigation, who assisted the media and eased the pressure on the SIO;
- Well trained and briefed family liaison officers (FLOs) provided a significant response to the victims and their families whilst performing a crucial role in protecting the MPS reputation.

4.11 Recommendations

In summary, the recommendations for Command and Control related issues are as follows:

- To formally agree and document the category A+ investigation command structure, related roles and responsibilities, and publish as part of the *MPS (2008) London Homicide Manual*;
- To develop a role for highly experienced or retired senior/chief officer detectives to support Gold Commanders;

- Chief officers to be reminded of the importance of recording systems when making strategic decisions to ensure clarity and auditable trails;
- Greater usage of thematic reviews on key strategic investigative areas;
- BOCU business continuity plans to include a response to resource intensive investigations;
- Greater time devoted to the development of bespoke review terms of reference to ensure focus upon the critical areas of investigation;
- A review officer should be assigned to the investigation immediately in category A+ homicides;
- The chair of any unsolved review meeting should be the DAC SCD when a commander is actively involved in managing an investigation;
- Develop an approach to regularly test DPA's readiness to respond to large investigations;
- Review the suitability of the CRIS Case Management Project to manage a large investigation within a BOCU environment and formally consider the development of guidance and standards for large scale investigations;
- Review any ongoing corporate strategic detective development projects with the intention of initiating a project to look at the current approach to detective development with particular emphasis within BOCU.

5 Investigation

5.1 Background

Operation Yeaddiss was an extremely professional investigation led in very difficult circumstances by DCI Sutton and his investigation team. This point should not be lost within the detail of the debrief. The MPS had a linked series of stranger homicides and considerable concern was being expressed from various groups. It is within this context that the investigation moved forward. A number of elements of the investigation were identified and dissected through the debrief process, these are outlined below.

5.2 Matrix management

Matrix management is an approach to identify persons of interest (POI) where the investigation does not have any clear suspects to implicate or eliminate. Many of the officers expressed mixed views on the benefits of opening this 'pandora's box'. Before embarking on this approach, a clear and robust elimination criteria must be set, without which individuals of the appropriate profile will not be properly eliminated from the

investigation. The identification of many persons of interest became problematical both at the time and at the subsequent trial. The use of matrixes in identifying persons of interest/suspects is widespread practice. To assist SIOs in considering using this approach it may be useful to develop practical guidance based on the experiences of practitioners who have utilised them both with and without success.

5.3 Family liaison

As Operation Yeaddiss developed, a number of investigations were identified which became part of the linked investigation. Concerns were expressed about the robustness of these investigations considering the gravity of offending. One of these offences involved Kate Sheedy. This investigation provided the potential for the MPS to lose the confidence of Kate and her family. A great deal of time was invested in supporting Kate and the work of her FLO cannot be overstated. The strategy employed resulted in Kate Sheedy maintaining a positive outlook on the investigation and the MPS which was subsequently reported in the media.

Family liaison was highlighted by all as one of the areas of success in managing a variety of different victims and their families. It was considered the crucial factor in ensuring that confidence in the MPS was maintained.

5.4 Media engagement

Following on from the excellent FLO work performed with the surviving victims, the long-term post charge work with the media was identified as a major success leading up to and after the trial. There were a number of MPS vulnerabilities which potentially could have distracted from the success of Operation Yeaddiss. The strategy required a great deal of time being invested in developing and maintaining relationships with the media. This was underpinned by a pre-trial briefing to members of the Crime Writers' Association. While this approach has been used on many occasions before, the whole strategy resulted in:

- Little adverse press comment about police activity;
- Significant focus on the perpetrator;
- Positive support for the victims and their families.

This can rightly be considered a major success of Operation Yeaddiss.

5.5 Levi Bellfield

Levi Bellfield was known to police indices and as is often the case, could be described as being 'in the system'. Identifying such individuals within a pool of significant others is a challenge. However, in identifying and subsequently researching Bellfield it became apparent that he had a vast number of intelligence and crime report entries. He had committed a wide range of violent crimes, however, the risk he posed to the public was never identified.

Considering the context of the non-identification of Bellfield raises the question of whether the MPS can be satisfied that their systems are robust enough to ensure that key individuals are identified? It is proposed that a key learning exercise would be to review Bellfield to identify any weaknesses within the MPS systems, whether those weaknesses still exist, and if identified for solutions to be developed.

5.6 Core roles

The professionalism of individuals performing the core roles was a significant benefit. During the debrief each gave great insight into their learning and development, which resulted in tremendous product for the SIO. Of particular note was work completed in relation to disclosure and CCTV. Both of these areas had significant volume issues. These officers expressed a desire to share their experiences with others who will perform similar roles in the future. The development of a guidance document for each of these core areas was proposed by one of the officers debriefed. This could be made available through the OCU intranet site, to provide hints, guidance and tips and be managed and quality assured by the OCU training unit to ensure it is kept up-to-date and relevant.

5.7 Experts

Due to the nature and range of offending behaviour a number of external experts were utilised to assist the investigation, including accredited Behavioural Investigative Advisers (BIAs). Senior detectives expressed reservations about the benefit of using such experts. It is interesting to compare some of the issues raised with the experiences of officers within the child protection arena, where the confidence to challenge experts has been identified as of critical importance. It was a formal recommendation of the Victoria Climbié Inquiry paragraph 14.73 that:

'Training for child protection officers must equip them with the confidence to question the views of professionals in other agencies, including doctors, no matter how eminent those professionals appear to be'.

In line with this recommendation, training for detectives must ensure that it provides them with the confidence to challenge expert advice.

Since Operation Yeaddiss, SCD1 have reviewed their systems for the employment of BIAs. As a result, there is now far greater management involved in the consideration of the use of such experts and any subsequent decision to pursue a course of action must be agreed by the MIT manager.

5.8 Crown Prosecution Service liaison

There was early liaison with the Crown Prosecution Service (CPS) and they were a critical partner in the investigation. A strong and positive relationship with the CPS is important if any suspect is to be brought to justice. This was achieved in Operation Yeaddiss. The relationship with the CPS and subsequently counsel, ensured a joint approach. The appointment of dedicated disclosure counsel, Ms Navaz Daruwalla, was highlighted as an effective approach. Dealing with the legal requirements of disclosure was a mammoth task and having somebody from the prosecution team focusing on this area worked effectively.

5.9 Good practice

- Robust elimination criteria must be developed and documented when pursuing a matrix management approach to identifying persons of interest.
- Deployment of FLOs and implementation of a strategy to support the surviving victims.
- Development of a post charge and pre-prosecution media strategy to maintain a positive relationship with the media.
- Improved managerial oversight and intrusion in the use of external experts within investigations.
- The appointment of dedicated counsel to deal with disclosure issues.

5.10 Recommendations

- Work with the NPJA to develop, with the assistance of practitioners, an aide-memoire for SIOs on suspect or POI matrix management.

- Conduct a review of Bellfield and MPS systems to identify any corporate system weaknesses.
- The development of core role aide-memoires (eg, CCTV and disclosure) recognising the learning of the officers who performed these roles.

6 Human Resources

6.1 Individual impact

The commitment of the staff who dedicated their time to this investigation was highly commendable and cannot be undervalued. However, what may not have been appreciated was the potential career impact that this would have on individuals. The recognition of the specialist role of detectives seems to often be at odds with the broad generic competencies used when considering the suitability of candidates for promotion. A number of individuals who had not been successful when applying for promotion expressed a great deal of personal frustration. While fully understanding the consistent standards applied through the competency framework, as an organisation we must recognise the skills required within specialist detective roles. If specialist detectives are disproportionately disadvantaged by organisational systems what will the long-term impact be? Where are our future SIOs being developed if not through the most challenging of investigations?

The type of issues raised by staff resonated with those highlighted by staff involved in Operation Bracknell, the UK policing response to the Tsunami. This highlights the need to implement a bespoke human resource strategy which is able to manage the human resources issues which occur over such extended investigations. While such issues are the day-to-day business of managers, when wrapped up within a high-pressure task driven environment, they may not always be managed as effectively as intended.

6.2 Resourcing of investigations

The allocation of human resources was an issue which caused tension across SCD and raised some far reaching strategic issues with one of the most contentious being, high risk investigations versus ACPO led investigations.

This may, on the face of it, not seem much of a concern, however, amongst SCD1 management this caused great angst. SCD1 continues to manage a vast range of investigations many with significant risks to the organisation and the people of London.

These are managed within the OCU by prioritising resources to meet the risk while balancing day-to-day business. When an investigation is overseen by a chief officer, pressure is exerted to divert resources into their single focus. A number of senior officers questioned the role of chief officers in homicide investigations now that SCD1 is a single OCU. This structure provides a detective chief superintendent who can manage, oversee and, where appropriate, strategically lead investigations at Gold level. When this issue is considered, in addition to the continuity issues discussed previously, this opens up the possibility that the MPS considers a role, rather than a rank approach, to address this issue.

6.3 Deskilling

As an investigation team, the Operation Yeaddiss team were removed from their OCU commitments and were dedicated to this investigation, albeit they still managed the various investigations they owned prior to this. Over the next three years the focus of the team continued to be narrow as they brought the case to a successful conclusion. There were a number of significant benefits for the investigation which resulted from this approach. The continuity of staff in core roles ensured that their level of knowledge and professionalism was at a significant level. This aided the SIO and is linked to the importance of the appointment of key staff to critical posts. This does, however, now conflict with the views expressed by staff described within sections 5.6 Core roles and 6.1 Individual impact.

The long-term commitment of the team to this investigation has resulted in deskilling of staff in their ability to perform the breadth of roles required within an SCD1 major investigation team. Many new staff have joined the team who have not been exposed to the 'normal' business of the OCU. This needs to be built into the human resource strategy so that their development is managed, allowing the team to move back into their general role and be able to fully deliver this function.

Linked to this is the effective use of resources within the team. A number of officers described some staff as being rushed off their feet (eg, core role officers), however, other officers not part of this core group were described as being under-tasked. This appears to provide the conditions for a team within a team scenario, which is not conducive to effective working. It does, however, provide the opportunity for new staff to be developed and exposed to SCD1 core business elsewhere within the OCU, which is a human resource strategy issue.

6.4 Good practice

- Continuity of individuals within core roles for the duration of the investigation.

6.5 Recommendations

- The development of a human resource strategy on long-term category A+ investigations, in partnership with the SIO, led by the OCU human resource manager and MIT manager.

7 Logistics

7.1 Accommodation

The biggest logistical challenge that the investigation faced in its early days was the lack of suitable accommodation. The team were originally based at Barnes police station. This building was shared with another SCD1 MIT, SCD5 Child Abuse Investigation team and an SCD7 Flying Squad team. This building was a challenge for the resources located there prior to this investigation. Upon the influx of additional resources to support Operation Yeaddiss it was apparent that this accommodation was unsuitable. Many officers commented positively on the reasonable timescales within which they were moved into accommodation at Putney. This, however, raises the more problematical strategic issue of how large investigations are accommodated within the West London area. With pressure to utilise accommodation, the ability to have 'mothballed' category A suites at strategic locations across the MPS does not initially appear to be a viable option. To be prepared for the next large scale investigation, an innovative review must be conducted of the accommodation options involving SCD resource managers and the Property Services Department to develop a contingency plan which can be activated, rapidly when needed to house large investigations.

7.2 HOLMES

During the debrief a number of issues relating to the use of HOLMES were raised. Some of these were in relation to the IT requirements and support for linking HOLMES accounts. HOLMES is not an easily linked system for some forces who do not use it on a regular basis either 'live' or in exercise mode, as recommended by the National User Group. The difficulties were mainly due to force infrastructures, firewalls and the use of unsupported versions experienced during operation Yeaddiss.

The most consistent concern raised during the debrief was the different update versions which forces were working to. Further examination identified that the critical issue was that some forces were utilising versions of HOLMES which were no longer supported.

The problem of incompatibility between different HOLMES versions across forces is a risk. The current position is that of all the fifty-three UK forces likely to link, there are only one or two not currently on a supported version.

Double-keying material in both HOLMES and the MPS intelligence system was raised as a key issue. This caused frustration with one of two potential outcomes:

1. Officers fail to put intelligence into the system (this job was solved through intelligence work). This is a process issue and the primary responsibility to input intelligence is that of the enquiry officer if it is they who obtain that material.
2. A great deal of time is used inefficiently through double-keying. A nationally agreed and efficient process that HOLMES2 is part of is required to address this.

This is certainly a corporate if not national issue and was highlighted previously within the SCD's submission to the MPS Service Review as an area where greater efficiency could be achieved:

Review and develop the HOLMES system. Currently double inputting is required both into the HOLMES system and then additionally into CRIMINT. To additionally develop the system so that it can be accessed through an icon within the AWARE system. To improve the facility within HOLMES in the way the search engine works. This would increase efficiency in terms of employing indexers and would speed up the process. Additionally, development is required so that it can be searched and accessed through an integrated intelligence system.

Since Operation Yeaddiss a new free text search engine has been installed to HOLMES2. Progress, however, still needs to be made within the area of double-keying. Work is currently being carried out under the ACPO Homicide Working Group Management of Police Information (MOPI) project.

Further issues were raised about the MPS use of the HOLMES system and how it might be improved. On large investigations, access to HOLMES terminals can be limited and officers fed back good practice utilised by other forces. In particular, the integration of HOLMES onto the force general use platforms so that those with appropriate rights can then access them without the requirement to use a HOLMES-only terminal was suggested. This would provide a practical solution.

Due to the number of related investigations, some already had HOLMES accounts and others did not, this created a complex scenario for developing a HOLMES policy. Concerns were expressed that for various reasons information obtained as a result of enquiries were lost or had to be entered onto more than one account. Ideally when an incident is thought to be part of a series then all of the incidents should be input onto the HOLMES2 system, either at the time they are identified as part of the series, or as a thorough back record conversion ensuring that all material obtained as part of the investigation is input onto the system to allow proper searching and linking to take place.

As this is the system on which all large investigations will be managed, learning opportunities exist to both shape current systems and potentially the national use of HOLMES. An in-depth review of the following will provide learning that will shape the future and will provide a resource for SIOs faced with such challenges:

- Account management;
- Operational problems experienced;
- Duplication issues;
- Disclosure and redaction processes.

7.3 Public appeal management

With the ever-increasing growth of media programmes focused on real life crime issues (eg, Crimewatch), the opportunity to pursue public appeal strategies presents both a positive opportunity and a challenge. When pursuing such strategies the requirement to implement systems to manage the response is critical. Operation Yeaddiss made appeals to the public for information to assist the investigation. Since this time MIRweb has been developed which provides a systematic approach to manage incoming information (see *NPJA (2008) Operation Sumac Tactical Debrief*). It is not clear how widespread knowledge of this opportunity is amongst the MPS SIO community and it may, therefore, be appropriate to develop a briefing or guidance document for SIOs on the use of MIRweb.

7.4 Good practice

- High-level ownership and intervention to deliver suitable accommodation for the investigative team.

7.5 Recommendations

- Review of West London accommodation with the strategic intention of developing contingency plans for large category A+ investigations.
- A solution to HOLMES/intelligence system double-keying to be further explored.
- Conduct a review of the HOLMES account of Operation Yeaddiss and related offences.
- Develop a briefing or guidance document for SIOs on the opportunities afforded by MIRweb.

8 Conclusion

The MPS homicide response and investigation has developed significantly since Operation Yeaddiss. The most significant development has been the creation of the Homicide and Serious Crime Command. This has brought together three separate OCUs providing greater resilience and consistency of working practices across the MPS.

Operation Yeaddiss was a tremendously successful police investigation focusing on a most difficult scenario, stranger murder. The professionalism and determination of all involved displayed the MPS at its very best. There has been significant strategic development around the investigation of homicide within the MPS and the learning from Operation Yeaddiss will provide a positive opportunity to further continue this development for the benefit of the people of London.

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Air Support: So much more than just a pretty picture

Captain Oliver Dismore
National Police Aviation Advisor, National Policing Improvement Agency

Abstract

Captain Oliver Dismore is employed by the National Policing Improvement Agency as the National Police Aviation Adviser and provides ministers, ACPO and forces, professional aviation advice on the whole range of Home Office aviation, from unmanned air vehicles to helicopters and fixed-wing aircraft. Following twenty-two years in the Fleet Air Arm of the Royal Navy, where he enjoyed a varied career of aircraft, squadron and ship command, Oliver has specialised in police aviation since 1997. Having held a number of air support unit posts, including Chief Pilot for the West Mercia, Staffordshire and Surrey forces, he moved to his current advisory role in November 2006.

Mainly considered the province of uniformed-support, police air support in the UK leads the world in its technological sophistication. It remains, however, largely underused in the field of criminal investigation. This article seeks to expose some of the techniques and considerations which, if applied, may provide the element that completes the link in the investigative chain between crime commitment and conviction.

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1 Introduction

What follows will come as no surprise to SIOs in the Metropolitan Police Service (MPS) area, where their Air Support Unit (ASU) plays an active part in formally educating investigators, at every level. I am indebted to Sergeant Richard Brandon, Training and Technology Manager at the MPS ASU, for his initiative in creating the Tactical Options Menu concept and assistance with this article.

During a Professional Practice training day last year, an excellent presentation was given on the investigation into the murder of five women in Ipswich, by one of the senior investigators involved in the case. In his presentation and the related court case, good use was made of annotated aerial imagery but, on questioning him afterwards, little or no consideration had been given to the use of our aviation assets in the investigation itself.

The Home Office police forces currently operate thirty helicopters and three fixed-wing aircraft from twenty-nine bases in England and Wales. In addition, there are two aircraft in Northern Ireland and one in Scotland, operated by Strathclyde Police.

With a few exceptions, mainly in the surveillance field, police aviation assets are seen as belonging firmly in the reactive, uniformed-support arena. This perception is actively reinforced by the proliferation of popular television portrayals of air support activity, such as 'Skycops' and 'Chopper Coppers', where the visual appeal of vehicle pursuits and foot-chases leading to arrests is compelling. In recent years, however, linked to the introduction of better equipment, there has been a steady move towards proactive tasking in support of intelligence-led policing. The split is still far from equitable with reactive tasking representing more than eighty per cent of the total but it is a step forward in better utilisation of these valuable assets.

2 Air Support Activity

Traditional air support activity, both spontaneous and pre-planned, encompasses the following main tasking areas:

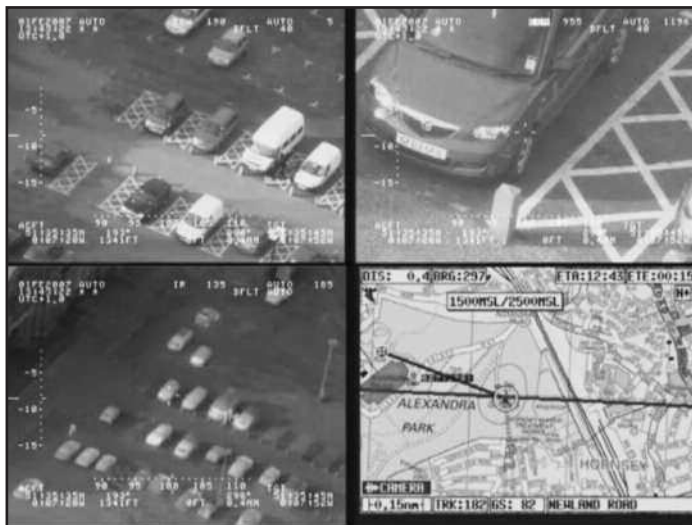
- Searches (suspect, missing persons, vehicle and security);¹
- Vehicle pursuits and follows;
- Tactical Support;
- Armed incidents and stops;
- Aerial imagery;
- Evidential, Operational and Contingency Planning;
- Surveillance (covert and overt).

While some of these are relevant to investigation work, I will focus on the value the modern camera suite can add to an enquiry. All our aircraft are fitted with modern, military-specification camera turrets offering, as a minimum, high quality daylight and infrared (IR), also known as Thermal Imager (TI) cameras. More recent designs have also seen the introduction of enhanced magnification lenses ('Spotter Scopes') and low-light cameras allowing more detailed scene examination and lower light levels respectively.

3 Latest Developments

In the most modern installations, these camera outputs are all capable of being viewed at the same time, together with detailed mapping down to individual house level with the camera slaved to the satellite-derived position and vice versa. This 'Quad Screen' presentation, captured on solid-state digital media, not only makes compelling evidence for all manner of enquiries but also allows the operator to pick the most appropriate camera system for the circumstances. This image can be viewed concurrently on a separate large Liquid Crystal Display (LCD) screen. A typical car park scene is depicted in Figure 1 in Quad screen view.

¹ Home Office research completed in 1988 compared the effectiveness of a helicopter against ground resources in the searching of a controlled 1 square mile area. The results were conclusive and showed that the search took 12 minutes to complete by helicopter finding all control items. The same search to find all control items took 450 police officer hours to complete. This research is being re-visited to take account of updated sensor equipment, higher resolution screens and changed techniques.

Figure 1 Quad screen view

Clockwise from top left we see the view from the daylight camera, ‘Spotter Scope’, moving map and the IR view from the TI. So, having established that high-quality aerial imagery is available from our aircraft, how is that useful to the investigator?

Before we consider the practicalities, it is worth dwelling on some of the unique properties and opportunities presented by the latest generation of TIs. Firstly, cameras operating in the IR part of the spectrum can capture characteristics of a scene that are not readily apparent to either the naked eye or to cameras operating in the visible range. Typical IR cameras operate in the 3-5 μ m wavelength and measure the heat radiated by an object, using a super-cooled detector as the reference source. In simple terms, the greater the contrast between an object and its surroundings, the stronger the IR return. This, of course brings its own limitations. For instance, after a relatively short immersion time, a body in water will be at the same temperature as its surroundings and therefore invisible to an IR camera. Equally, heat-soaking through the day can lead to all objects being at similar temperatures and becoming almost invisible, which is known as the ‘afternoon effect’.

Such limitations, as well as technological advances, have led to the introduction of low-light cameras which have the added benefit of displaying the same colours and contrasts as daylight images as opposed to the, sometimes difficult to interpret, thermal image.

As with the visible portion of the spectrum, materials respond at IR by reflecting, absorbing and transmitting heat, to varying degrees. It is these properties which are of particular interest to the investigator, especially as, in contrast to light, these characteristics can have a residual effect allowing hidden facets of the scene to be captured for up to an hour afterwards – the ‘golden hour’, further details are outlined in section 4 The ‘Golden Hour’. The degree to which reflection, absorption and transmission take place is dependent on the physical properties of the object; the radiant energy wavelength and the temperature of the surface being viewed.

For example, the images in Figure 2 Thermal Imaging show a hot suspect against a cold background, and a hot suspect masked by foliage breaking up the outline but showing uncharacteristic heat radiating from under foliage.

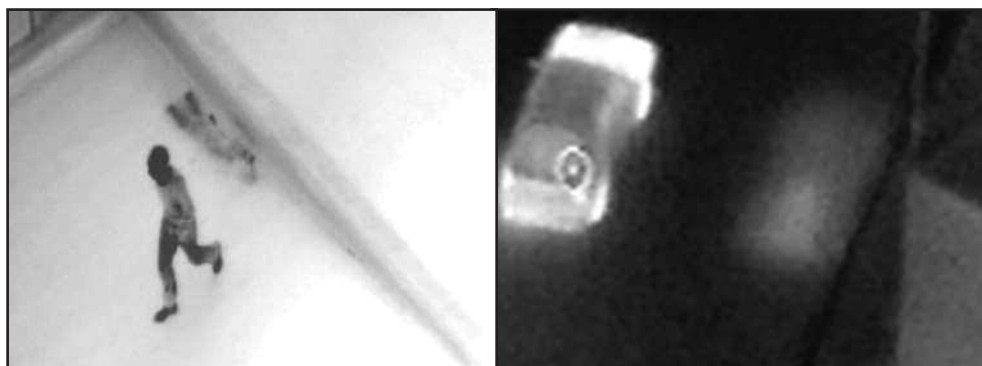
Figure 2 Thermal Imaging



Developing this theme further, the characteristics of heat transfer and dissipation can be used to good effect. Firstly and the most short-lived effect (see Figure 3 Thermal Scarring). Here, through friction or other contact, heat is transferred from one object to another. In Figure 3, the tyres heat has been transferred to the road surface to leave clearly discernible skid marks showing the vehicle’s trajectory.

Figure 3 Thermal Scarring

Secondly, Thermal Residue (see Figure 4 Examples of Thermal Residue), together with Thermal Highlights (see Figure 5 Examples of Thermal Highlights), is a characteristic of particular interest to the investigator as it provides an insight into the history of a scene. Depending on the prevailing conditions, this view of past activity may linger for up to an hour afterwards. At the time a scene is discovered, investigators are unlikely to know its age, extent or relevance. Capturing information from the air may provide the missing piece of the investigative jigsaw². Although the information may prove to be irrelevant, can you afford to take the risk of missing something? The examples in Figure 4 shows the typical residual heat left by human contact and, on the right, from a parked car.

Figure 4 Examples of Thermal Residue

² Home Office research completed in 1988 compared the effectiveness of a helicopter against ground resources in the searching of a controlled 1 square mile area. The results were conclusive and showed that the search took 12 minutes to complete by helicopter finding all control items. The same search to find all control items took 450 police officer hours to complete. This research is being re-visited to take account of updated sensor equipment, higher resolution screens and changed techniques.

Figure 5 Examples of Thermal Highlights

Figure 5 shows two examples characteristic of Thermal Highlights that occurs when an object that was providing a barrier to heat transfer (in these cases the sun) has been removed. On the left, a parked car has driven off to leave a residual 'cold patch' where the sun's radiation has not penetrated and, on a larger scale, a twin-engine aeroplane at Heathrow has left its evidence long after the aircraft itself has departed. In these two examples, sample length measurements could be taken to narrow down specific vehicle types.

Finally, Thermal Transmission can be of assistance, albeit primarily at the reactive end of the detection chain. We have all seen television images of suspects hiding in wheelie bins, where the suspect's radiated heat is transmitted through the bin's plastic to be readily detected in contrast to its neighbours. On a grander scale, uncharacteristic heat emanating from rooftops is nearly always worthy of further investigation, especially in the current financial climate where innocent sources of waste heat are increasingly rare. See Figure 6 Thermal Transmission.

Figure 6 Thermal Transmission

In Figure 6, the camera operator is using 'black hot' although this is readily switchable to provide the best contrast for the prevailing conditions.

4 The 'Golden Hour'

The golden hour, a much-used expression, drawn from the medical trauma world but equally applicable to the earliest stages of investigative support where, as we have seen, evidence not available through other means can, literally, disappear. Even where evidence does not vanish, as in the case of thermal information, it can change significantly to provide conflicting clues to those subsequently attending the scene. In the case of the Russell Square bus bomb, for instance, the MPS ASU attended the incident immediately and harvested all available electro-optic (EO) information while the first response was still taking place on the ground. It was only during the subsequent, detailed investigation, that the images of the scene were consulted to find that seat cushions and other distributed objects had been moved by rescuers rather than the bomb's blast.

The same technique is equally applicable to rural crime scenes, where evidence of vehicular or pedestrian movements or evidence of activities outside the immediate perimeter can easily be obscured by subsequent ground-based activity.

5 What can Air Support Units Deliver for Investigators?

Having covered the theory, how can investigators harness air support in practice? Well, the good news is that these techniques are not just available from specialist units, there are capabilities delivered throughout the UK to a consistent standard and continually evolving through customer (ie, your) need. Specifically, every ASU is capable of delivering:

Evidence

- Evidential digital stills - either from high resolution hand-held camera or 'frame grab' from video;
- Evidential video of the scene (day or night);
- Intelligence collection and support for warrant applications.

Briefing

- Imagery to assist in planning the investigation;
- Imagery to provide the highest quality briefings possible.

Planning

- Post-crime activities (eg, arrests, searches, surveillance);
- Tactical support, containment and evidential support during post-crime investigation activity.

Presenting the Case

- Photographs for use in court;
- Assisting explanation of surveillance logs.

If this short article achieves nothing else, please give some thought (preferably in advance of an urgent requirement) to how you might use your ASU, including whether:

- You have equipment requiring rapid deployment;
- You need scientific support (right people quickly to the scene);
- You need transport even in gridlock;
- You need a nationwide capability.

The sky is the limit!



UPDATE... UPDATE... UPDATE... UPDATE...

The Home Secretary, the Right Honourable Jacqui Smith MP, formally launched the National Ballistics Intelligence Service (NABIS) on 2 March 2009, at a ceremony held at the Birmingham NABIS Hub.

NABIS has been fully operational since the beginning of November 2008, when the Southern Hub based in London opened for business and the Central Hub based in Birmingham took responsibility for covering the whole of its geographical area, having accepted approximately sixty per cent of its workload in September 2008, at the same time that the Northern Hub in Manchester became fully operational.

All forces are now able to submit any ballistic material that is suspected of being linked to a crime to one of the NABIS hubs, who in urgent cases will be able to let investigators know if the submitted item is linked to any other incident anywhere else in the country within forty-eight hours of receipt at the hub.

Operational Results

During the first three months that NABIS became fully operational the operational results were as follows:

- In excess of 700 ballistic material submissions;

- Northern Hub – 256 case submissions, 32 links between incidents established;
- Central Hub – 147 items submitted, 28 links between incidents established;
- Southern Hub – 316 case submissions, 31 links between incidents established;
- Significant national links identified including weapons used in shootings in Wolverhampton and Birmingham, Manchester, Birmingham and Liverpool, West Mercia and 7 separate incidents across the West Midlands;
- In excess of 50 'inferred guns' have also been identified.

The NABIS database has been rolled out nationally and is able to provide information on people, objects, locations or events that are linked to incidents of gun crime. This intelligence will be crucial in helping investigators to understand the significance of linked incidents. On a strategic basis the intelligence is providing a context to the extent of the illegal

possession, supply and use of firearms and directing proactive work upstream.

The National Firearms Intelligence Cell (NFIC) is using the information on the NABIS database to provide a monthly update containing both tactical and strategic intelligence which will be distributed to all forces. Work is ongoing to further develop the database for forces so that it is more user friendly as a search tool.

The response from most forces in implementing the business change to make the most of the capability of NABIS has

been encouraging, yet there is still work to be done. The NABIS team are currently working with forces that have yet to refine their processes as the long-term utility of NABIS will be completely dependent upon the active participation of all forces.

It is hoped that a fourth NABIS hub based in Strathclyde to serve the police forces of Scotland will open in the summer and will be fully integrated with the current NABIS infrastructure. Talks are also ongoing with the Police Service of Northern Ireland about the potential for their integration in the near future.

The NABIS team can be contacted on

0845 113 5000 ext 7630 6204

For further details see: **www.nabis.police.uk**

Investigation into the Murder of Hell’s Angel Gerard Tobin on the M40: A murder committed by an Organised Crime Group against another

Detective Superintendent Ken Lawrence
Warwickshire Police

Abstract

This article details the investigation into the murder of Gerard Tobin, a Hell’s Angel, targeted because he was a member of the Hell’s Angels, by another Outlaw Motorcycle Group known as the Outlaws.

The author Detective Superintendent Lawrence, was the SIO on this investigation. Detective Superintendent Lawrence has served in Warwickshire Police for over thirty-two years and is the Force Head of Major Investigations and the Force Principal SIO. The majority of his police service has been as a detective, although he has served in uniform at every rank up to and including chief inspector. He has a depth of experience across all crime areas within the Police Service.

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1 Background

Although not obvious from the outset, this murder was a consequence of rivalries between different outlaw motorcycle gangs (OMCGs). This is a generic term that includes such groups as the Hell's Angels, Bandidos and Outlaws. These are probably the three largest of such groups although there are many more, but most OMCGs are affiliated to one or other of these three. This murder involved members of the Outlaws and Hell's Angels. The Bandidos, who originate from Mexico and South America are not present on the UK mainland but are present in Europe.

As the investigation progressed I became increasingly aware of these groups and what they stand for, in particular the ongoing violence between them. This violence is often extreme, involving murder and serious assaults with weapons, including firearms and explosives. This rivalry takes place on a global scale and an attack in one country could well lead to reprisals in another. It is, therefore, difficult to determine a precise motive for a particular attack.

The Hell's Angels MC (Motorcycle Club) was the first of the OMCGs, formed in the late 1940s early 1950s by American ex-servicemen after the second world war. The organisation of the group is along military lines, with a hierarchical rank structure. There is a code or set of rules that govern every member's conduct and these are strictly enforced, with violence, if felt appropriate.

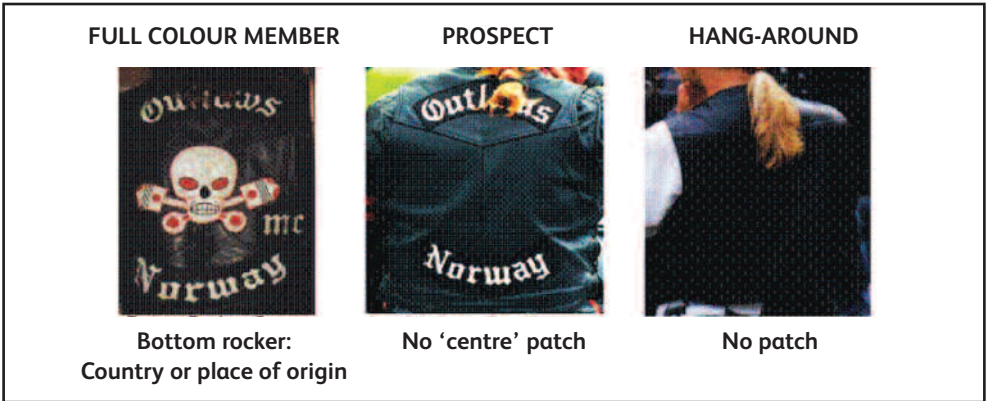
There are units within the membership that are called Chapters. These are geographically based and each Chapter has hierarchical ranks, led by a President. These positions are voted upon by each member of the Chapter.

Each OMCG is identified by a set of 'patches'. These are worn on their clothing and are unique to the group. They are cherished and protected by the membership and have to be 'earned'. They signify the status of the wearer as either a 'full patch' member or a probationary member, ie, a 'prospect' or 'probate'. Another recognised position is that of a 'hang-around'. These are people seeking acceptance by the group, with a view to joining. They wear no patches at all.

Figure 1 – Hell’s Angels Patches



Figure 2 – Outlaws Patches



Figures 1 and 2 illustrate the patches as they relate to the status of the wearer. They are relevant to this investigation as the victim, Gerard Tobin, was identified by the offenders by his patches, indicating his full patch status. His riding companions comprised of one Prospect and two Hang-arounds.

Other OMCGs formed and followed the Hell’s Angel’s model. They copied the rank structure and terms and also wear their own distinctive patches. They also to a great extent, live by similar codes or rules, although these tend to be individual to each specific group.

2 Circumstances of the Offence

Gerard Tobin was killed at around 14.20 on Sunday 12 August 2007. He was shot as he travelled south on the M40 near Leamington Spa, Warwickshire. He was riding his Harley Davidson motorcycle, followed by a Prospect and then two Hang-arounds who were travelling on one motorcycle in third place in the convoy. This formation is dictated by their status. They had all been to an event called the Bull Dog Bash in south Warwickshire. This is an annual event organised and run by Hell's Angels and is the biggest of its kind in Europe. The event in 2007 took place from 10-12 August and was the twenty-first consecutive year it had been held.

Having left the Bull Dog Bash, the motorcycles travelled to Stratford-upon-Avon where they stopped to refuel and then headed north on the A46 before joining the M40. As they approached the junction with the M40, a green Rover pulled out from a lay-by and followed them onto the motorway. While travelling in the region of 90 miles per hour, the Rover closed in on the motorcycles. The third motorcycle ridden by the two Hang-arounds moved into the middle lane from the offside to allow the car to pass. The second, ridden by the Prospect did likewise, as then did Mr Tobin. The Rover approached Mr Tobin from behind and as it did so, two shots were fired from the car. One bullet, a 9mm struck Mr Tobin in the back of the neck, just below his skull and crash helmet, severing his spinal column and killing him instantly. The other bullet, a 7.65mm struck the rear mudguard of his motorcycle.

Mr Tobin fell from his machine and tumbled about 150 metres along the carriageway, coming to rest in the offside lane of three. His motorcycle continued, upright for a further 150 metres before leaving the carriageway and crashing through the fence adjacent to it. The Rover continued and sped off down the M40 southbound.

Despite the motorway being quite busy, Mr Tobin was not struck by other vehicles and there were no further collisions. Witnesses called the police and the motorway was closed in both directions.

At this very early stage, there was no indication of the motive for the murder or who the perpetrators were. The riding companions of Mr Tobin answered police questions for a short time, until they received mobile phone calls. At this point they completely refused to cooperate with the police, thereby honouring their 'code'. As a result I instructed the arrest of one of the riding companions on suspicion of murder, as at that stage it was not known exactly what had taken place. Hell's Angels also travelling from the event became very difficult to manage and were travelling through the tailback of about two hundred cars

caught on the motorway, to the location of Mr Tobin's body, and then returning north on the southbound carriageway, ignoring police instructions.

Early scene preservation was difficult. One Hell's Angel managed to approach Mr Tobin's body and ripped the patches from his clothing. This was another example of their code. The patches belong to the Chapter and are great trophies if they fall into the hands of another OMCG or non-members. The police were able to retrieve these immediately, but demonstrates some of the difficulties experienced at the scene.

3 The Investigation

An investigation such as this is extremely complex and this particular one moved at lightening pace. There were only ten days between the murder and the first arrests. This needs to be borne in mind when considering the circumstances, along with the massive scale of the fast-track actions and incoming information. There were however, a number of milestones within this, they included:

- Intelligence;
- Scene;
- Media;
- Recovery of the car used in the murder;
- Linking the Outlaws MC (OMCG);
- Sean Creighton and Financial Investigation;
- CCTV and Automatic Number Plate Recognition system (ANPR);
- Telecommunications;
- Associations between offenders;
- Surveillance;
- Arrests.

Intelligence

From the outset of the investigation, there was no meaningful intelligence on the Hell's Angels or anybody seeking to attack them. One significant consideration was whether this was an attack on Mr Tobin personally, or because of his association with the Hell's Angels. If he had been specifically targeted, it would have a serious investigative implication and would have almost certainly meant that he had been followed from the Bull Dog Bash site, in turn suggesting perhaps a more sophisticated operation by the offenders. As evidence was collected, it became more apparent that the motive was likely to be related to Mr Tobin being a full patch member and had been targeted for this reason alone.

A real difficulty I found was that there was nowhere to turn for advice about OMCGs. Intelligence databases did not hold any current information on OMCGs and no one was able to assist with information into the likely background to this murder. Europol were very helpful and liaison was maintained with them. The work we had carried out in preparation for the Bull Dog Bash event also helped, but certainly was not extensive.

Scene

The first big challenge was the scene, managing the cars on the motorway, dealing with the road closure and all that entailed on a summer Sunday afternoon, along with evidence and body recovery.

Our Scientific Support Manager, a detective chief inspector (DCI) managed the scene. He was given parameters and did an excellent job. We started at the rear of the column of cars caught in the tailback. Search officers looked around each car and in its tyres. When satisfied, the car was rolled backwards, searching the area and tyres as it went. When cleared, the car was allowed to turn around and leave the motorway under police supervision. We hence cleared the road, searching as we went. By this method, a spent 7.65mm shell case was recovered. This was identified as belonging to one of the offender's weapons, the one that struck the mudguard of Mr Tobin's motorcycle and gave us our first clue. A ballistics expert was able to confirm that this came from a semi-automatic handgun. At the post-mortem, the expert was also able to state that the 9mm bullet recovered from the body came from a revolver, a different weapon, and was supporting evidence that there were two gunmen. This matched witness accounts that there were three men in the Rover, two passengers and a driver.

Media

From the very first day, the media interest in this case was immense. On the occasions I was absent from the Incident Room, deputy SIO DCI Nav Malik, managed the media and did an excellent job. Between us we were able to cope with the pace at which the inquiry progressed. The media story was reported around the world. During the following two weeks, the story received four million 'hits' worldwide on the BBC News website.

Recovery of the Rover car

An obvious line of inquiry from the outset, was the Rover. It was consistently described as green by witnesses and thought to be a 620 model. On Monday 13 August, a report of a

burnt-out BMW was received by the Major Incident Room (MIR). The car was in the West Midlands Police area. Later information suggested it was in fact a Rover, not a BMW. An action from the MIR to examine the car was carried out as a matter of urgency. PNC described the vehicle as blue, not the green one we sought. However, further confirmation of the colour was sought, including the manufacturer's description. A small piece of material from the bumper of the car was all that was left to identify the colour. When examined, this showed that the car had metallic paintwork and appeared to be green. This information was available three days into the investigation and influenced our thinking around the significance of this particular vehicle.

Linking the Outlaws MC vehicle

As a result of the media coverage, information was received that a person who had the appearance of a 'biker type' owned a green Rover in Coventry. Enquiries revealed that the vehicle was registered to a man called Sean Creighton, an Outlaw, and the car was subsequently identified on an ANPR photograph travelling in convoy with the Rover found burnt-out, and used in the murder. Both Rovers were similar in appearance.

Simultaneously, the Intelligence Cell working as part of the MIR, identified a small number of Outlaws active within the Warwickshire area. There was still nothing to link this group with the murder, but it was a routine line of inquiry. With his name and Outlaw membership, Creighton was further investigated and linked to other Outlaws who were members of a Chapter, calling themselves the South Warwickshire Chapter, the area in which the Bull Dog Bash was held and where the murder occurred. Through intelligence research, a number of other members of this Chapter were identified, and later transpired, were the other offenders.

Sean Creighton and financial investigation

Within the first two or three days of the investigation, further enquiries were carried out on Creighton, including some work by the force Financial Investigations Unit. This revealed credit card usage at a petrol station near to Junction 12 of the M40 in Warwickshire at 10.45 on the day of the murder. It later transpired that card usage was identified before and after the day of the murder and this, linked again to CCTV images, provided useful evidence to support the fact that he had changed his appearance by shaving off his beard and hair around the time of the murder. Creighton clearly had hair before the 12th August, but did not, on or after that date.

CCTV and ANPR

As previously outlined, CCTV and ANPR images and records proved invaluable in detecting this offence. The seizure and viewing of this material was subject to fast-track actions and the financial information led us directly to sources that may have taken us more time to collect or maybe not have collected at all. This led to the gathering of CCTV images from the petrol station near Junction 12. These images showed three men in a green Rover 620i, appearing to be disguised wearing coats and hats, which was out of keeping with the summer weather. One of these men was identified as Sean Creighton, thereby making the first tangible link to the Outlaws. The registration number of the Rover could be seen on the CCTV images and was confirmed as the burnt-out Rover previously found in the West Midlands (the car was registered in a fictitious name, but two months earlier had been registered to Creighton).

The significance of Junction 12 was that it was a possible escape route after the shooting, which had occurred between Junctions 13 and 12 on the southbound carriageway. The registration number was searched for on CCTV and ANPR records around the Bull Dog Bash, south Warwickshire and Stratford-upon-Avon areas. A dedicated team of detectives, led by a detective sergeant undertook this task. A number of 'hits' on this vehicle were found in these areas between 9-11 August, during and just preceding the Bull Dog Bash. An image of the Rover was also found on the CCTV of a small car sales forecourt in a village between Junction 12 of the motorway and the route from there back to Coventry, where some of the offenders were subsequently found to live and where their 'clubhouse' was located. Considerably more material was gathered and used in the prosecution and assisted in the eventual convictions.

Telecommunications

Key to the prosecution case was evidence gathered from mobile phone usage. This, when viewed alongside the CCTV evidence, was very damning. Once suspects had been identified and some mobile phones recovered, the pieces began to fit together. One of the mobile phones, belonging to Simon Turner, was shown to be in the area of the lay-by on the A46 from which the Rover appeared and pursued the motorcycles, at the time the car was seen there. Analysis of all the mobile phone traffic showed that all the offenders were in the south Warwickshire area over the period between the 9-12 August, the period of the Bull Dog Bash. It also showed their escape route from the motorway murder scene back to Coventry, supported once again by CCTV evidence. Turner's phone was even shown as being on the motorway in the vicinity of the murder at the time it occurred. The cell site survey proved invaluable.

This evidence was so compelling that it resulted in all the offenders eventually admitting to being in the area at the material time, but claiming to be 'gathering intelligence' on the Hell's Angels and not involved in the murder. The jury was not convinced.

The volume of material gathered and time taken preparing and analysing it proved to be justified. It persuaded the defendants to admit to a large part of the prosecution case, that they were in fact in the area of the murder at the time. They went on to fabricate a reason for this and the prosecution was able to demonstrate that this was not credible.

Associations between offenders

The investigation team and in particular the Intelligence Cell, was able to piece together the group of suspects from the work they undertook in a very short timescale. This linked three of the suspects together, using the CCTV at the petrol station near Junction 12. Names were researched and subsequent identifications developed. The ultimate examination of this was evidence gathering following arrest.

Surveillance

Once I was confident with the intelligence work and development of the suspect identities, surveillance teams from Warwickshire and other forces and agencies were deployed. This was primarily to gather intelligence and prove the suspected associations, confirming the intelligence already gathered. The surveillance teams were able to establish the links and on the sixth day, following the murder, were able to put all seven members of the South Warwickshire Chapter of the Outlaws MC in one place, meeting together, including those thought to be on the petrol station CCTV on the day of the murder. The evidence gathered by these teams was also instrumental in making the decision to arrest at an early stage. The evidence was given during the prosecution and special measures were applied, as they were to other witnesses.

Arrests

A decision to arrest three Outlaws was taken. This was based largely around the background work that had been undertaken, surveillance, CCTV, in particular linking the burnt-out Rover to the petrol station on the morning of the murder, the ANPR around south Warwickshire and finally Creighton, including his financial investigations links. These three were those thought to be in the Rover on the 12th, given the certainty this was the car burnt-out that evening and that witnesses had described a similar vehicle.

Arrests were made on morning of the 22 August 2007, utilising firearms teams from Warwickshire and West Midlands Police. Three suspects were arrested and as a result, a fourth was arrested later the same day. Searches of premises revealed unequivocal proof of Outlaw membership of all of those arrested. A handgun and shotguns along with ammunition were recovered, although the murder weapons have never been located. Material recovered included mobile phones although clearly, the suspects did have some knowledge of how to avoid detection by this method, but they had made mistakes, sufficient to allow us to gather the type of evidence referred to above.

In accordance with their 'Club code', they made no comment to all questions put to them during interview. Despite this, three were charged with murder and the fourth, who could not be linked to the CCTV at the petrol station, was charged with firearms offences in respect of those recovered from searches. He was prohibited from possessing them by virtue of previous convictions. All were remanded in custody.

As previously stated, there were seven members of this Chapter, confirmed from documentation seized following arrests and corroborated by the surveillance evidence. Although we had charged three with murder, it seemed most probable that all seven were likely to be involved. We could have left it there, settling for the three, but I felt it was right to pursue the others and determine whether there was evidence of their involvement. It seemed logical that they would be involved.

The investigation continued into the three remaining members of the Chapter. The four in custody were all full patch members of the Chapter, as was one of the other three, but the remaining two were prospects or probates. Further investigative work was undertaken, including more surveillance. With further telephone work still ongoing (in fact most of it came in after the original charges and continued for some time), it became more apparent that they were acting with the others. Certainly they appeared to be in the same area and vehicles captured on various CCTV and ANPR systems showed that they were. Early on the day of the murder, CCTV captured them on the M40 Services at 06.00. These services are about a mile and a half from the murder scene. When all this evidence was assessed it justified the further arrests. These took place on the 3 October 2007. As a result of further searches, corroborative evidence was collected and the remaining three were also charged with murder and remanded in custody. Further charges were laid later, referring to possession of firearms and possession of firearms with intent to endanger life. One of the three broke the Club's rule of silence and answered some questions put to him in interview. This was I believe due in part to the skill and commitment of the Tier 3 Trained Interviewers and the Tier 5 Co-ordinator, all of whom worked very hard and with great determination. As a consequence, this one defendant had to be segregated from the others and housed in a separate prison for his own safety.

4 Trial

The trial of all seven defendants commenced on the 2 October 2008 at Birmingham Crown Court. On the first day, around one hundred and fifty members of the Outlaws MC attended. Security measures were stringent and as a consequence, many discarded weapons were recovered from areas around the Court building by search teams at the end of the first day. There were no firearms, but there were knives and knuckledusters and other similar items. Outlaws maintained a presence throughout the trial, but with small numbers until the last day, the day of sentence, when around a hundred attended. Security measures included a continuous presence of police officers around the outside of the Court building, relevant locations within the city of Birmingham and inside the Court building itself. A proportion of these officers were armed. The prisoners, all Category A, required the appropriate level of armed escort to and from the prisons in which they were held. There was no overt attendance throughout the trial by Hell's Angels.

On the first day of the trial, Creighton entered a plea of guilty to all charges. This to some degree took all by surprise, as he had not indicated this intention prior to then. He had made a somewhat bizarre confession in writing from prison, in which he claimed to be responsible for the murder, along with the fictitious man to whom the green Rover had been registered. He stated this man had since left the country. This was seen as a false confession, in so far as it contained factual inaccuracies, designed to be tactical and mislead the police. All the others pleaded not guilty to all charges, resulting in the trial lasting eight weeks.

All but one of the defendants accepted they were in the south Warwickshire area as alleged on the day of the murder, 'gathering intelligence on Hell's Angels.' They denied knowledge of any intention to murder anybody and blamed Creighton and another defendant, the one who had broken their code and spoken during questioning. Simon Turner denied being there, saying he had been suspended from his Outlaw membership early on the day of the murder because he argued with the Chapter President about the worth of them 'gathering intelligence'. As a consequence, he alleged he also had his mobile phone taken off him and did not go out with others on the 12 August, although he did admit to being out with the rest of the Chapter over the preceding days in south Warwickshire. This was a story invented to counter the compelling mobile phone evidence.

The trial ran for eight weeks, during which the jury retired and returned verdicts in respect of one defendant at a time, almost entirely in the order they appeared on the Indictment. The only exception to this was that they convicted the two Prospects at the same time. Their roles were stated to be identical and this I suspect made the jury's decision easier. The final verdicts were delivered eight days after the jury retired. The sentences were passed the following day.

On sentencing, the judge handed out minimum sentences ranging from twenty-five to thirty years.

Interestingly, only one Defence Statement was received by the prosecution weeks before the trial, two were received two to three weeks before and the others not until the first or second day of the trial itself. This was raised in Court and the judge made reference to this fact. A number of interesting issues arose during the trial. Some of the defendants refused to answer certain questions during cross-examination when strongly pressed by Prosecuting Counsel, citing their code as the reason. Even when ordered and warned by the judge, they still refused. This again gave rise to guidance for the jury during their deliberations. Evidence of bad character was introduced in respect of two defendants, although fiercely contested by their Defence. As stated, special measures were used in respect of some witnesses.

Evidence was presented in Court, making use of TV monitors with material prepared in force. This consisted of a compilation of various media, including CCTV, ANPR, computer-generated graphics, still photography and surveillance footage. This proved extremely beneficial for the Court and in particular the jury. The jury was also presented with a bundle comprising of a 'storyboard' and various analytical products around the telecommunications evidence, which would have been very difficult for them to follow in any other format. They were able to retain these during their eventual deliberations.

The storyboard was a document that included a number of photographs and CCTV/ANPR stills, arranged in chronological order, that the prosecution would rely and which would enable the jury members to focus upon the relevant implications of these, as well as place them into context as the evidence was adduced.

5 Conclusion

It is often said that when a significant event occurs, people can remember for many years, exactly what they were doing at the time they heard that news. This is a case in question for me. I will I think, always remember taking that telephone call at home on that sunny August afternoon, hearing of the event, such as it was understood at that early stage and preparing to go to work, not really understanding the potential of what was to come. All I knew at that stage was that a body had been found on the M40. It was not known how it got there, whether it was a result of a traffic collision or whether it had been deposited there. All soon became apparent.

Similarly, I will always remember my words at the first full staff briefing on the morning of the 13 August, words that have on occasions been quoted back to me, 'Roll up your sleeves everybody, this is going to be hard work and you could be here for some time'. Little did I know the speed at which this investigation would progress.

Like many SIOs, I travelled a roller coaster journey, from a position of ignorance about a topic, in this case OMCGs, at the outset, to having to learn quickly. In those early hours and days, there was nowhere to go for information, nobody to call or expertise to tap into. By no means an expert, I do now have considerably more knowledge on the subject than when first taking that call (by the way, I was washing my car). As a result of these events, there is knowledge and developing expertise available to assist any future SIO involved in this type of investigation, involving such groups.

There is now much greater awareness around OMCGs and intelligence is collected on a regional basis. A group has been established to develop and coordinate intelligence gathering and share good practice in this area of policing.

I would summarise the key learning points of this investigation as follows:

- Whenever dealing with members of OMCGs, assume they will not cooperate. Obtain as much evidence as is possible, as early as possible.
- Identify and maintain a clear focus on what you, as the SIO, believe are the key lines of inquiry, or those most likely to be productive (eg, the burnt-out car). Pursue the matter even though on face value it appears not to be linked, but worthy of first hand examination.

- Despite the image that OMCGs would like to portray, do not underestimate the danger or risk they pose.
- No matter how enormous the task of investigating a particular crime seems at the outset, do not lose sight of the basic methodology and techniques. In this case, use of data that is out there including CCTV, ANPR, Cell Site/Radio Frequency Survey and Financial Investigation.
- When collecting and analysing CCTV images, utilise trained investigators, preferably detectives. I know from my own experience that staff who are available are often used for this purpose and I am not diminishing their commitment to such tasks, but having a trained evidence gatherer to identify the usefulness of evidence, pays dividends. In this enquiry a team of detectives, led by an experienced detective sergeant were employed for this purpose.
- It is the pulling together of all the strands of evidence that complete the evidential picture. Cast your net wide in this respect and where you can, act swiftly.

Operation Pentameter 2 (UKP2): An overview for the major crime investigator

Detective Chief Superintendent Richard Berry
UKP2 National Coordinator

Abstract

Operation Pentameter 2 in the United Kingdom (UKP2) took place in 2007-8 and focused primarily on human trafficking for sexual exploitation. This article outlines the details of UKP2 and explores issues which are relevant to those practitioners involved in homicide and major crime investigations.

Detective Chief Superintendent (DCS) Richard Berry was appointed as the national coordinator for UKP2 in May 2007. A small team of national coordination staff officers were assembled. All staff reported to a national multi-agency Gold group, which provided operational governance. A range of national strategies were composed and implemented by nominated senior lead officers. These included victim care, media and intelligence strategy, which involved the largest ever deployment of linked HOLMES2 accounts creating a virtual national intelligence system. The operational activity was launched on 3 October 2007 and continued until April 2008. The coordination team have conducted an extensive debriefing programme of over five hundred staff during six regional briefings. The lessons learned have been incorporated within a report published by the national coordination team in March 2009.

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1 Sex Trafficking and Homicide/Harm Suppression

The relationship between organised sex trafficking activity and homicide/harm is not fully understood. Perhaps this is because sex trafficking is a relatively new social phenomenon, which is being recognised as considerable in scale and complex in nature.

The Police Service is presently grappling with the concept of homicide/harm suppression. There is evidence which suggests that proactive approaches within ‘public protection’¹ can reduce the incidence of certain categories of homicide or serious offences and therefore deliver measurable harm reduction benefits.

The trafficking of human beings (THB) is conducted for sexual exploitation², enforced labour³, domestic service and potentially for organ removal. In addition, the case of the discovered human torso ‘Adam’ suggests that of a small boy being trafficked for voodoo ritual and sacrifice. THB is a blend of organised immigration crime and the abuse of basic human rights.

New legislation has made it a criminal offence to traffick a person for sexual exploitation into or from within the UK, although this has been cumbersome to prove. Some victims of this exploitation are coerced into abusive situations analogous to the notion of false imprisonment or sex slavery. Other victims, such as those illegally brought into the country, have found themselves in a bond of debt where the mechanisms of control are ambiguous or difficult to establish. These coercions include threats to family back home, cultural shaming or simply a debt to pay off. Experience suggests that victims can adopt ‘evasive’ prepared scripts when they interact with law enforcement, making this particularly challenging for the investigator to determine whether someone is a victim of trafficking.

An interesting dilemma relating to homicide/harm risk is outlined in the following anecdote. During 2008, a snapshot review of those persons using the sexual services of a South-East Asian massage parlour based in a wealthy county town in England was conducted. Over a sample period of two weeks communications data, it was established even from incomplete datasets, that local police knew significant numbers of potential clients. This group contained a number of registered sex offenders (RSO).

¹ Examples are domestic violence, child protection, prostitution and the use of the Multi-Agency Public Protection Arrangements (MAPPA).

² Sexual exploitation can include children and is perhaps most accurately considered as those services traditionally associated with prostitution.

³ Seen often in low cost agricultural and factory work. The Morecambe Bay cockle-picking victims being an example of this trend.

This scenario in turn raises interesting questions concerning risk; is it less harmful to the wider population for RSOs and those with propensity for sexual offending/violence to use such services potentially provided by a trafficked woman, or should this be suppressed by policing activity? Would this disperse dangers of sexual violence to the wider populace? How do you manage the duty of care when a victim of trafficking is providing these sexual services? The Multi-Agency Public Protection Arrangements (MAPPA) regime may have an expanded role into these issues in the future. It should be noted that without the above anecdotal research, the intelligence concerning the RSOs was unknown to law enforcement.

The UK intends to implement measures within the European Convention on Human Trafficking that permit, regardless of citizenship, a forty-five day reflection period for potential victims to be supported in secure environments. It is hoped that through this process their victim status can be properly determined and investigated. Longer term residency permits are also being proposed.

The nature and extent of THB for sexual exploitation is not known and, therefore, the nature and extent of the harm/risk remains a matter for debate. The British government and law enforcement agencies, however, have been keen to research this for THB. This has grown in impetus in recent years and was one of the main priorities during the UK's presidencies of the EU and G8, and led to the EU Human Trafficking Action Plan being implemented late in 2005. This plan amalgamated the work across government and with partners, setting sixty-two practical measures in four key areas:

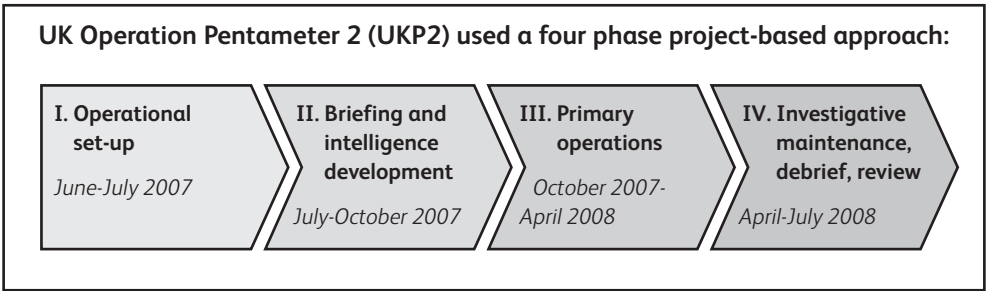
- 1) Prevention;
- 2) Enforcement/Investigation and Prosecution;
- 3) Protection and Assistance to Adult Victims;
- 4) Child Trafficking.

Subsequently, the UK Human Trafficking Centre (UKHTC) was established. It is against this backdrop that Operations Pentameter 1 and 2 (UKP2) were developed.

2 UKP2 Objectives and Organisational Structure

UKP2 was a four-phased project as outlined in Figure 1.

Figure 1 The Phases of UKP2



There were a range of operational objectives, and from a law enforcement perspective the key objectives were twofold:

2.1 Objective 1: To establish the nature and extent of THB for sexual exploitation

Rationale: Human trafficking receives a growing amount of concern and media attention in the UK, yet no one is aware of the extent of the problem. Without knowing the extent, it is impossible to establish whether an intervention is having an impact on tackling the problem.

2.2 Objective 2: To use financial attack against this serious form of organised crime

Rationale: Human trafficking can be a difficult crime to identify and prove, particularly if the victims are too scared to give information. If, however, there is sufficient evidence of a crime having been committed, and the proceeds of the crime indicate it to be large-scale and organised in nature, UK law enforcement can target the finances of the operation, thereby, attacking the heart of criminal gains.

3 Phase 1: Operational set-up

Phase 1 had the following key deliverables:

- Formation of the multi-agency Gold group;
- Engagement with local forces to gain buy-in;
- Development of draft UKP2 Operational Strategies;
- Confirmation of UKP2 Operational Objectives;
- Formulation of UKP2 Operational Policies and Protocols with other agencies, for example, media, victim and intelligence strategies.

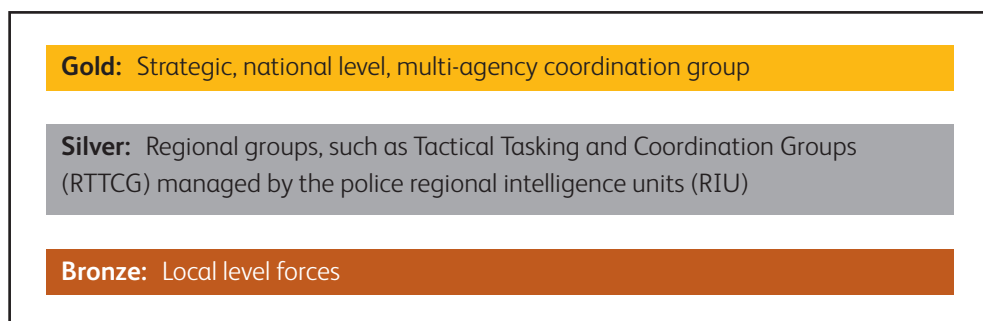
In June 2007, as part of UKP2 Phase 1, a start-up national briefing was delivered at Gloucestershire Police HQ to over one hundred law enforcement officers. A key aspect of UKP2 was a strategic-level focus on THB as organised crime to be addressed through intelligence-led policing.

UKP2 enabled forces and ACPO regions to demonstrate compliance with the UK National Intelligence Model (NIM) and deliver activity against the following:

1. Regional Control Strategies⁴ (most of which have THBs for sexual exploitation as an explicit priority);
2. Force-level Control Strategies.

UKP2s three level hierarchical structure reflected the UK police structure: local, regional and national.

Figure 2 Operational Structure



⁴ A control strategy is set for a policing priority and has three components: enforcement, preventative measures and intelligence requirements.

The national multi-agency Gold group incorporated the Serious Organised Crime Agency (SOCA), UK Borders Agency (UKBA), the Home Office, HM Revenue and Customs (HMRC), the UKHTC, the Child Exploitation and Online Protection Centre (CEOP), ACPO, NPIA, Scottish Government, Northern Ireland Office, Garda Siochana (Police from Republic of Ireland) and key NGO partners such as the Poppy Project⁵ and CHASTE (Churches against Sex Trafficking in Europe).

4 Phase 2: Briefing and intelligence development

During Phase 2, six regional briefings were held across the UK, including an all-Ireland briefing during the summer of 2007. Over 500 law enforcement personnel were briefed during this process. Each delegate was provided with a briefing folder containing comprehensive documentation relating to the operation, legislation and points of contact for advice.

Phase 2 Briefing sessions covered the following:

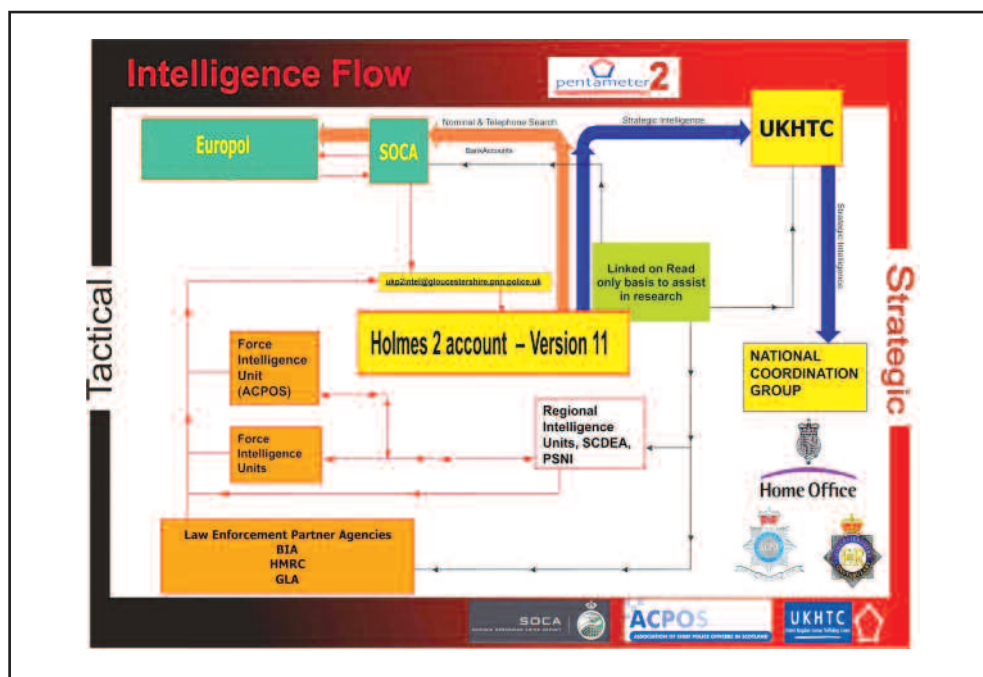
1. Government responses to trafficking;
2. The context and concept of UKP2;
3. Overview of the SIO Toolkit;
4. Case Study – THB investigation;
5. Case Study – Financial Investigation and Proceeds of Crime;
6. Victim Care and CPS Legal Issues (UKHTC);
7. The National Intelligence Strategy – SOCA;
8. Tackling Human Trafficking: HMRC's contribution;
9. Border and Immigration Agency (BIA);
10. Questions and Answer Session.

UKP2 utilised HOLMES2 for intelligence management. In order to facilitate the national intelligence-based approach, a bespoke data structure, intelligence repository and business processes were developed.

⁵ Charity that has governmental funding to provide accommodation and aftercare for victims of trafficking.

A unique feature of HOLMES2 is the ability to directly link between servers, proving very important to UKP2. The operation linked servers across nineteen different areas, which provided multi-site access to forces, RIUs, ACPOS intelligence cell, UKHTC and SOCA. Linked accounts such as these had never before been carried out on such a large scale in UK policing. Each link provided access to the intelligence account on a read-only basis. This ensured that data quality could be centrally managed, and UKP2 could adopt the principled business model of a central research incident (CRI), as illustrated in Figure 3.

Figure 3 The UKP2 Central Research Incident Intelligence Flow



HMRC and SOCA placed intelligence development officers within the national coordination cell to use the dataset to develop various operational responses against organised trafficking networks. For example, HMRC would enforce income tax associated with these networks.

There were three UKP2 intelligence requirements set for forces, regional intelligence units and ports/border policing points. The operation collated nearly 6,500 intelligence logs which were input onto the HOLMES2 system from police, HMRC, UKBA and SOCA.

For just over every nineteen intelligence logs submitted there was an entity match between independently sourced intelligence reports.

These often involved multiple matches, for example, several forces and several entities showing significant links between crime networks. A match generated a report, which was communicated to the originating force/organisation. This was followed up after a period of three weeks using a delayed referral mechanism within the action management facility within HOLMES2. UKP2 Gold staff also extracted entity data using extraction scripts from HOLMES2 and this was sent to Europol to facilitate the development of crime maps of trafficking networks throughout Europe and beyond. These are often referred to as source and transit locations.

5 Phase 3: Primary operations

Primary operations were initiated by Bronze Commanders who coordinated the activity within their respective force area. All fifty-five local forces reported operational activity on a fortnightly basis. Data collection was managed by secure email, with four key operational objectives. The key objectives and outcomes of this phase were:

5.1 Key objective 1

To rescue victims of human trafficking and identify, disrupt, arrest, and bring to justice those involved in criminal activity.

UKP2 recovered 167 sex trafficking victims from 822 premises across the UK: 157 were massage parlours or saunas, and 582 residential premises. 528 arrests were made for separate offences ranging from trafficking, proceeds of crime offences, prostitution and sexual offences. Towards the end of the operational phase, more than 80 individuals had already been charged and a number of others remained on bail while investigations continued.

The majority of victims originated from East and South-East Asia, with others from Eastern Europe. Thirteen were children, with the youngest aged fifteen. This reflected the general intelligence picture that a bulk of the criminal activity of trafficking for sexual exploitation into the UK is related to South-East Asia.

5.2 Key objective 2

To reduce the harm caused to individuals by improving victim protection and assistance, by taking forward an enhanced human rights and victim-centred approach at the operational level.

A national victim strategy was designed, providing victim accommodation and specialist assets. This strategy featured in the briefing process and the SIO toolkit. The toolkit is now being developed into a 'Trafficking Investigation Manual' by the UKHTC and others.

Predictably, there were many practical challenges experienced by local investigators, such as determining victim status. Those subjected to debt bondage, the highest volume (but lowest risk) group, were more likely to be uncooperative and experiences showed that they often provided incomplete or misleading accounts. In some cases, language barriers and the provision of urgent accommodation were investigative challenges. In order to help measure some of these victim interactions, a 'Victim Attrition Model' was developed by the UKP2 Gold staff (see Figure 4). This is presently being analysed for investigative learning.

Figure 4 Victim Attrition

		Attrition Status
	NO DATA AVAILABLE FROM FORCE	1
STAGE ONE – ATTRITION DURING INITIAL INTERACTIONS WITH LAW ENFORCEMENT	Victim has declined any support offered and not believed by the officer in the case (OIC) to be a victim of trafficking	2
	Victim has declined any support offered but believed by OIC to be a victim of trafficking	3
	Victim receives support (ie, Poppy Project, Social Services, Jarrett Community etc) but declines to assist investigation	4
	Victim made false claims of trafficking in order to obtain leave to remain in the UK	5
	Victim designated not to have been a victim of human trafficking by the OIC or Competent Authority (UKHTC or BIA)	6
	Victim to be disregarded as upon arrival at a UK port they did not hold an appropriate visa and there is no suggestion that they have been trafficked	7

		Attrition Status
STAGE TWO – ATTRITION DURING PRELIMINARY INVESTIGATION	Victim repatriated to home country or last point of travel in EU having been recognised not to be a victim of human trafficking by the OIC	8
	Victim repatriated to home country or last point of travel in EU having been recognised to be a victim of human trafficking by the OIC	9
	Victim identified but not yet interviewed	10
	Victim has absconded	11
	Victim provided intelligence (non video recorded) debrief but declines to prosecute	12
	Victim provided video recorded evidence or intelligence debrief but declines to prosecute	13
STAGE THREE – ATTRITION AFTER VICTIM HAS SUPPORTED PROSECUTION	Victim has provided evidence and criminal investigation ongoing (eg, suspects on bail to police station and no prosecuting authority decision as yet)	14
	Victim has provided evidence and suspect(s) charged with offences relating to trafficking scenario	15
	Victim has provided evidence but no charges brought for any offences in relation to trafficking scenario	16
	Victim has provided evidence but no finding of guilt for any offences within the trafficking scenario	17
	Victim has provided evidence and guilt found	18

‘Any offence’ = any offence within the trafficking scenario such as sexual offences, offences against person, POCA offences, brothel offences and supporting illegal immigration offences

Similarly, to consider the other side of the investigative process a suspect attrition model was developed (see Figure 5). THB is one of those areas of criminality where investigators discover that a suspect can also be a victim and vice versa. Individuals may be trafficking victims but also principals in the dispersal of funds (ie, money laundering). This is a complex area for investigators.

Figure 5 Suspect Attrition

		Attrition Status
	NO DATA AVAILABLE FROM FORCE	1
STAGE ONE – ATTRITION DURING INITIAL INTERACTIONS WITH LAW ENFORCEMENT	Suspect spoken to only by police, no offences disclosed	2
	Suspect arrested but no further action taken prior to custody	3
	Suspect arrested and charge refused by custody officer	4
	Suspect arrested but later identified as a victim of human trafficking	5
	Suspect arrested and released on police bail pending further enquiries	6
	Suspect arrested and released on police bail but has subsequently absconded	7
	Suspect arrested and deported	8

		Attrition Status
STAGE TWO – ATTRITION POST CHARGE Offence Type	Suspect charged and released on police bail pending further enquiries – no conditions	9
	Suspect charged and released on police bail pending further enquiries – with conditions	10
	Suspect charged and released on Court bail – no conditions	11
	Suspect charged and released on Court bail – with conditions	12
	Suspect charged and remanded in custody	13
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5.3 Key objective 3

To fully utilise the powers afforded by the Proceeds of Crime Act 2002 and Powers of Criminal Courts (Sentencing) Act 2000 by ensuring maximum disruption to criminal activities and that those responsible are stripped of their assets.

Through UKP2 investigations up until the 1 May 2008, over £500,000 cash was seized and over £3 million in further assets were initially retained pending further investigation. This figure is anticipated to increase through subsequent investigations. Financial attack was further adopted through the Criminal Taxes Unit of HMRC. Intelligence concerning possible further targets has been passed to HMRC for further investigation and follow-up.

5.4 Key objective 4

To improve the knowledge and understanding of the scale and nature of the THB problem presented within the UK.

Using the UKP2 dataset and other available sources, the South-West Regional Intelligence Unit (SWRIU) has completed a regional assessment that is now being used as a model for national adaptation under a specific national project. The SWRIU model was based on mapping different sectors of the sex industry and trafficking intelligence against the risks of harm through a continuum of coercion levels. The higher the levels of coercion, the greater the risk of harm and duty of care law enforcement agencies have to consider.

5.5 Monitoring and risk management

The Gold group met on a monthly basis to provide oversight and strategic direction, in which the National Coordinator (DCS Richard Berry) and his team delivered a Highlight Report. This outlined the operational plan achievements during the month, risks to progress and operational priorities. Project risks were managed through an auditable risk register and all source documents throughout the operation were filed and maintained by the coordination staff.

6 Phase 4: Debriefing and review

A debrief template was circulated to all Bronze Commanders covering:

- Preparations for UKP2;
- Intelligence;
- Operations and investigations management;
- Criminal Justice and evidential issues;
- Miscellaneous issues.

These included identification of difficult issues and challenges that arose, as well as opportunities missed. Local debriefing was validated by a national event attended by over one hundred delegates using a wireless debriefing technology called ‘real tools’. The results of the debrief were subject of further consideration and report.

A National Feedback Conference on 7 July 2008 was held in Gloucestershire, attended by over one hundred delegates from across the law enforcement community and government departments. The day consisted of feedback for law enforcement on the key lessons learned from the debrief process, with a keynote presentation from Vernon Coaker MP, Under Secretary of State for policing, security and community safety, demonstrating the high level political commitment to the operations. The lessons learned have been incorporated within a report published by the national coordination team in March 2009. This report has already influenced the UK Action Plan on Tackling the THBs.

6.1 Institutional Achievements of Operation Pentameter 2

UKP2 has been the largest national operation of its kind, and has set down significant strategic markers for UK policing. A unique feature of the operation was the national system of an inclusive intelligence management structure on the HOLMES2 platform, demonstrating the benefits of national level multi-agency cooperation. This provided the following benefits:

1. Facilitated proactive tactical level delivery (eg, raids and rescues).
2. Facilitated the mapping and understanding of organised crime groups through data entity matching and supported in-depth investigations aimed at unpacking organised crime.

3. Facilitated the development of sophisticated strategic intelligence products, which helped demonstrate the nature and extent of sex-trafficking, the levels of coercion and risk across the prominent organised crime models encountered within the UK.
4. Post UKP2 operations have continued and have included force areas where prior to UKP2, THB was not considered to be a local problem.

6.2 Initial Lessons Learned

UKP2 demonstrated that integrated law enforcement operations on a national level can work, and that the UKP2 model can begin to address challenging criminality such as that presented by trafficking for sexual exploitation. UKP2 was a comprehensive baseline rather than a highly refined framework, further development work is therefore essential.

In order to address the emerging organised and widespread business models adopted by many of the syndicates involved in human trafficking, a national-level tasking and coordination process is required which underpins local operational responses. Some of the larger UKP2 operations extended beyond force and ACPO/ACPOS regional boundaries into upstream 'donor' countries.

7 Conclusion

THB victims who are sexually exploited are vulnerable because of their circumstances. This may be compared against predominantly non-trafficked sex worker data. Research⁶ conducted for the 2007 national ACPO Vice Conference indicated that the SCAS dataset contained 672 murders of which 121 (eighteen per cent) were known or believed to be prostitutes. Forty per cent of the prostitute murders on the SCAS database (n=48) were undetected.

Investigations can often drill back upstream to source and transit countries raising issues ranging from additional duties of care and sometimes the spectre of local corruption. This is a complex transnational organised crime issue.

⁶ ACPO vice portfolio.

THB certainly requires all of the investigative skills at both PIP2 and PIP3. Indeed, more specialist knowledge is required. Familiarisation of training and support from the UKHTC will support the refinement of skills, knowledge and understanding, which is sufficient to deal with relevant major investigations.

UK law enforcement should look to an expansive use of HOLMES2 in other similar scaled operations. HOLMES2 is funded and embedded into ACPO and ACPOS and therefore the use for UKP2 required no capital investment. It has a highly engaged user community and a support team within NPIA. UKP2 evidenced that it can be adapted for applications wider than traditional MIRs. This virtual, national-intelligence central research incident (CRI) was resilient with high volume usage which was maintained by three people.

Further research on the harm and homicide risks of THB should be conducted if we are to fully understand any homicide suppression measures that can be introduced in support of force and regional control strategies. This is now being progressed under Project Acumen and managed by staff from the South West RIU.

Improved international enforcement capabilities can also reduce the risk of harm within the UK. In UKP2 nearly half of the victims identified were from South East Asia. The work in this area continues. In Spring 2009, law enforcement from Thailand and the UK, with support from a United Nations project, met to explore possible approaches for developing a total approach for intelligence-led policing of the THB threat from South East Asia towards the UK.

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Behavioural Investigative Advice: A contemporary view

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Abstract

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Adam Gregory is the Deputy Head of Profession for Behavioural Investigative Advice within the NPJA. He was accredited by ACPO as an approved adviser in 1998 and has almost fifteen years experience in the field, providing behavioural advice to more than 150 serious crime investigations across the UK.

This article aims to provide a contemporary view of behavioural science within major crime investigations, highlighting the potential contributions and considerations surrounding its effective use.

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1 Introduction

Although there is a long history of police investigations using expertise from a wide range of professional disciplines, the contribution of the behavioural sciences to the investigative process is a relatively recent development. However, during the past twenty-five years, there has been an increasing realisation and appreciation that the behavioural sciences can contribute to the study of serious crime in ways that significantly enhance police investigative efforts.

The term ‘offender profiling’ was first regularly used by members of the FBI behavioural science unit who defined it as the process of drawing inferences about a suspect’s characteristics from details of his or her actions in a crime. In response to an increase in the incidence of murders committed by strangers and a decline in detection rates, the FBI began to formalise these efforts and attempted to put them on a scientific foundation. Their publications demonstrated that it was possible to draw general conclusions about an offender’s lifestyle, criminal history and residential location from a careful examination of where, when and how crimes had been committed.

This definition remained central to subsequent profiling efforts, despite the diversity of approaches that followed. ACPO Crime Sub-Committee on Offender Profiling advised that ‘offender profiling should be understood to consist of a range of methods used to develop advice for investigators, based on the study of behaviour exhibited in the commission of the crime(s) and the drawing of inferences about the offender(s).’

More recent developments in ACPO strategy concerning the provision of advice from a behavioural science perspective has replaced the term ‘offender profiler’ with BIA, in recognition that the term offender profiler had become too limited in its definition, as well as misunderstood by officers due to the myths generated by the media surrounding its use. Consequently, a BIA is someone who can provide investigative support and advice that links the theoretical basis of behavioural science with its effective application to the investigation of serious crime. The product of such activity now takes many forms and should not be regarded exclusively as the generation of a list of inferred offender characteristics. It is now viewed as a broad discipline, capable of casting a critical eye over an enquiry by examining and developing hypotheses, informing decision making and providing theoretical and empirical considerations at each stage of an enquiry.

2 The Role of the National Policing Improvement Agency

Since the early 1990s, behavioural investigative advice has been provided to UK policing by a diverse group of professionals approved by ACPO. Since 1999 however, individuals have been directly recruited by the NPIA, formerly the National Crime Faculty, as full-time BIAs, working alongside investigators and other relevant professionals within Crime Operational Support. Where possible, provision of an ACPO approved BIA will be made from within the NPIA and as such is provided at no cost to the investigation. However, if domain-specific expertise is required with respect to either crime type or service specification that is beyond the competencies of this team of individuals, referral is made to those with current ACPO approved status residing outside the NPIA. This two tier system underpins the successful management and delivery of behavioural advice. It is ACPO policy that only ACPO approved BIAs should be engaged to offer behavioural investigative advice. All requests for such support should be directed through the Specialist Operations Centre at NPIA.

3 Investigative Contribution

Behavioural investigative advice has the potential to contribute to many aspects of the investigative process and may take many forms throughout the life of an enquiry. While all of the products and services available offer tactical or strategic solutions in their own right, all are underpinned by a broader philosophy of adding value to the decision making of the SIO, through an enhanced understanding of the offence and offender from a perspective different from that routinely employed within major crime investigation teams. It is this additional perspective and associated expertise which should be recognised as the critical success factor of behavioural investigative advice.

Crime scene assessment and hypothesis generation

Critical to the provision of all BIA products and services is a fundamental understanding of the offence, and hence the offender(s), from a behavioural perspective. This is achieved through crime scene assessment and hypothesis generation. This involves the examination of the criminal event in minute detail and generating hypotheses based upon available information (See section 5 Requirements of the Behavioural Investigative Adviser for list of material required). Support for, or against, each of the possible hypotheses with reference to psychological theory, relevant research findings and experiential knowledge, with information gaps identified which will further enhance the process is then forwarded to the SIO. The benefits of such an approach are that specific hypotheses regarding the offence

can be tested in a methodological, objective fashion, based upon sound supporting rationale, consistent with the principles outlined in *ACPO (2005) Practice Advice on Core Investigative Doctrine*.

This approach underpins all of the products and services provided by BIAs, which are delivered within the philosophy of decision support and the practice of making explicit the evidence and rationale supporting all inferences and advice.

Offence linkage analysis

In the absence of any physical evidence linking a number of crimes, the contribution of behavioural analysis may be significant. Research into behaviour exhibited by offenders during the commission of their crimes has led to a greater understanding in consistency and variability of offenders when committing a series of offences. The creation of large data sets such as the Violent Crime Linkage Analysis System (ViCLAS) database maintained by the Serious Crime Analysis Section (SCAS)¹ allows for validation of initial hypotheses regarding linkage, as well as providing statistics on the frequency of individual behaviours, and more significantly, combinations of behaviours. Typically, a behavioural linkage analysis will be undertaken by a BIA in consultation with an analyst or senior analyst from SCAS.

Predictive profiling

Drawing inferences in relation to a particular offender on the basis of a comprehensive crime scene assessment is a process commonly referred to as predictive (or offender) profiling. It is important to recognise however that in contrast to its media portrayal, the focus of modern day predictive profiling is very much on investigative utility rather than psychological interest. A BIA will endeavour to make accurate assessments in relation to objective and verifiable elements of an offender's background. Consideration will be given to the likely age of the offender, whether they are likely to have previous police convictions and if so what these may be, and where they may reside or be based. Where possible, a BIA will work in collaboration with a geographic profiler so that the utility of predictions regarding offender residence are maximised. The goal of the BIA in this process is to allow the SIO and the enquiry team to focus on areas of investigation that are most likely to identify the offender.

¹ The Serious Crime Analysis Section (SCAS) is part of the NPJA and has a mandate to collect and analyse a range of sexually motivated offences throughout the UK.

Their collection criteria covers serious sexual assault and sexually motivated homicide and abduction. SCAS was established in 1998 and currently has 13,980 offences recorded on the database.

Nominal generation

An extension to predictive profiling, suspect generation, may be undertaken by the investigation under the guidance of a BIA. By taking the predictions made in relation to an offender's likely background characteristics, it is possible to utilise local crime and intelligence databases as well as the PNC to generate pools of potential suspects. Increasingly, this type of work is being undertaken by experienced analysts within SCAS utilising, for example PNC. In some cases it may also be possible to identify additional potential suspect pools on the basis of advice provided by a BIA by drawing on information held by other agencies (eg, housing lists, voters register and employment records). The potential for this process will always be evaluated by a BIA on a case-by-case basis.

Prioritisation matrices

Again, an extension of the predictive profiling process, a prioritisation matrix simply takes the individual predictions made in relation to the proposed background of the unknown offender and integrates them in the form of a matrix. Each facet of a potential suspect will be given a numerical value such that nominals within an enquiry can be objectively scored and ranked in terms of how well their background characteristics fit with those proposed for the unknown offender. This process is of particular utility if an investigation wishes to undertake an intelligence-led DNA screen or is seeking to prioritise many hundreds of potential suspects from a cold case enquiry or mass media appeal. Where possible, a suspect prioritisation matrix will always seek to integrate the behavioural predictions (in relation to an offender's background) with a geographic profile in relation to the most likely area of residence.

Investigative suggestions

In line with the BIAs intention to make their report as investigatively focused as possible, it is now normal practice for BIAs to offer direct investigative suggestions on the basis of the information supplied to them. It should be recognised that while the BIA role is very much an 'advisory' one, they do typically possess significant experience of major criminal investigations. This experience combined with their ability to draw logical inferences on the basis of an offender's behaviour, means that they will offer investigative suggestions to the SIO as a routine part of their report. Suggestions are made strictly on a case-by-case basis and should always be accompanied by a clear supporting rationale.

Interview advice

Contributions from a behavioural perspective can provide a significant enhancement to the development of interview strategies. In addition to the identification of information gaps and inconsistencies in previous accounts, a BIA can also assist in highlighting more subtle, behavioural inconsistencies, ambiguities and potential personality traits which may add further value to the investigative interviewing process. The advice is based on the experience and knowledge gained from clinical settings, investigative experience or academic research. Examples may be the type of officers to conduct the interview, the opening to the interview, and how the interviewee may respond to various themes of questioning. It is recommended that interview advice gained from a BIA is complemented with advice from the NPJA's National Interview Adviser.

Risk assessment

Analysis of an offender's background history and offence behaviour can provide information that may assist in specifying the social, environmental and interpersonal circumstances in which that person might be considered to be at an increased risk of offending. This information combined with local intelligence can help determine strategies for managing such offenders in the community. This service is typically undertaken by an external clinical or forensic psychologist or a forensic psychiatrist. As such, it is likely to come at a cost to an investigation.

Media advice

In certain circumstances it may be advisable to seek opinions from a BIA in relation to utilising the media in major investigations. This advice is intended to maximise the use of the media when, for example, making appeals to the public or releasing information about an offence, but also to enable SIOs to better understand the potential effects the media coverage may have on the behaviour of an offender.

Familial DNA prioritisation

Familial DNA searching works on the general principle that people who are related are likely to have more DNA in common than those who are not, and thereby seeks to identify individuals on the National DNA Database (NDNAD) who have a greater genetic similarity to the unknown offender and hence a greater potential to be related. The BIAs in collaboration with SCAS can utilise a sophisticated process which allows the resulting lists from forensic science providers to be re-prioritised with respect to age and geographic

association. By adjusting the genetic prioritisation to take into account an individual's age and geographic association, those individuals who are more likely to be relatives of the offender should become readily identifiable from the general backdrop of the lists, while still preserving the appropriate weight assigned to them through their genetic similarity.

4 Limitations

Suitability

While a BIA has the potential to add value across all types of investigations, some limitations exist regarding the suitability of BIA involvement. BIAs are best employed in cases of serious crime; homicide and sexual offences, although cases of missing persons, threatening communications, arson, abduction and other serious offences have all benefited from the provision of behavioural support. As a general guide, the offences best suited to behavioural analysis are those where sufficient offender behaviour is evident and where sufficient discrimination exists between offenders within a certain crime type. Advice on the suitability of requests for behavioural investigative advice is available through consultation with the NPJA.

Expert evidence

It is made explicit within BIA reports that they do not constitute expert evidence. BIA reports deal in probabilities, not certainties and provide the most likely 'type' of individual in order to systematically prioritise lines of enquiry. Due to the probabilistic nature of the findings, while the majority of recommendations will prove effective for the majority of cases, it is to be expected that in a minority of cases the individual responsible will demonstrate significant variance with the reported prioritisations.

Even if significant overlap exists between the profile and defendant, the best that could be inferred is that the defendant has the characteristics which have been suggested as most likely from a behavioural analysis of the crime scene and related information. This should be deemed insufficiently relevant and reliable and too prejudicial to be received by the court as evidence of the defendant's guilt. Although the inferences may be based upon statistical data and analysis, that foundation alone will not make the profile relevant in terms of indicating the likelihood of a specific defendant being guilty. It is for this very reason that it is made explicit that a BIA's report is not fit for purpose in attempting to provide evidence of an individual's involvement or guilt, or conversely as evidence that a specific individual cannot be responsible for an offence. This is not a failing of profiling, rather a recognition of

its investigative utility as a means of better understanding an event and informing and prioritising investigative decision making and actions. As such a profile should never be attempted to be used as evidence with regard to identity. However, the wider discipline of behavioural investigative advice may, under specific circumstances, be able to contribute to the court process, although the exact parameters and process for such a contribution are at present unclear and may be found to fall foul of the same obstacles as profiles if tested.

5 Requirements of the Behavioural Investigative Adviser

In order for the BIA to undertake their behavioural analysis and provide timely advice, a variety of case materials will be required from the investigation. The provision of these details will allow the BIA to commence their analysis and return a detailed report to the investigation within a timeframe that maximises the utility of the advice within. The required details are listed below.

- Full case briefing and access to SIO/investigation team;
- All relevant statements;
- Crime report;
- Any officers report/status reports;
- Pathology and forensic reports/findings;
- Full set of crime scene and post-mortem photographs (where applicable);
- Available analysis (eg, telephony, palynology, entomology);
- Relevant maps;
- Visit to all relevant scenes.

The scene visit is a crucial component of the process because it allows the BIA to gain a fuller understanding of the decision making process of the offender. Such information is not routinely available from crime reports, statements or photographs. In addition, the scene visit is typically complemented by a visit to the incident room/enquiry team, allowing the BIA to ask questions of the demographics and crime profile of the area, as well as to get a full briefing from the SIO or a nominated member of the investigation team. It is therefore of great importance that in addition to making the necessary case documentation available to the BIA, officers who meet with the BIA and who accompany them to the scene(s) should have a good knowledge of the relevant areas and of the offence(s) for which the support has been requested.

6 Effective Management and Use of Behavioural Investigative Advice

It is strongly recommended that SIOs agree terms of reference with the BIA to clearly establish what is expected of both parties. These terms should be established explicitly in writing as soon as the BIA is brought into the investigative process, and clearly understood by both the SIO and BIA. This is particularly important with regard to ownership of any material and confidentiality, which is expected in those instances where a BIA might have privileged access to sensitive information about crime scenes and/or victims. This should, for example, inhibit disclosure of certain information to the media without the SIO's permission. Terms of reference should also provide similar assurances to the BIA that all relevant case materials will be made available, and any developments which may support, refute, or refine the advice proffered, be communicated as soon as reasonably possible.

It is also recommended the SIO carefully read and note any caveats contained within the BIAs report.

The importance of the BIA becoming part of an advisory team needs to be emphasised. This ensures all experts are aware of the findings, opinions and advice of other members of the team, allowing for hypotheses to be supported, rejected or refined. As extra information becomes available to the enquiry, it should be passed on to all members of the advisory team, including the BIA.

It is also important to ensure officers regularly communicate with these specialists, not only to find out their results, but also to share relevant intelligence that might prompt searches for information in other directions. Discussions with specialists from other disciplines can also act as a useful safeguard against too narrow a focus in an investigation and can encourage officers to continue to look for other explanations for events.

The SIO should exercise caution when considering whether to involve a BIA to assist in an investigation. The use of a BIA should not be seen as a procedural requirement, but should be a carefully considered decision.

Having decided to seek assistance from a BIA, the SIO should not be uncritical of any information or opinion put forward by them. The SIO should be ready to explore and challenge assumptions made as well as pointing out any inferences that are inconsistent, contradictory, or logically incoherent. Only by thoroughly discussing the opinion in this way will the SIO be able to gauge the validity of the BIAs contribution to the investigation. The SIO should ensure that the BIAs opinion is fully explained in order to know what weight to assign to the information provided. Asking the BIA to justify the way in which they have

developed their methodology and derived any inferences should ensure their involvement in any investigation is transparent and explicit. SIOs are urged to look beyond the psychological interest factor towards the investigative utility of the advice.

It is of utmost importance that any behavioural advice provided to an investigation is utilised in the manner in which it was intended. In particular, it should be remembered that advice is typically offered on the basis of what is *most likely* or what should be considered *first*. Behavioural investigative advice does not deal in absolutes and as such advice from a BIA should always be evaluated carefully by the SIO to ensure that its impact on the investigation is proportionate.

7 Conclusion

The role of the BIA has undergone a significant evolution in recent times. Current BIAs are no longer isolated experts restricted to generating inferences about offenders in an investigative void. Rather they have become a more professional group of individuals with a vast experience of serious crime and how best to integrate their behavioural advice into the modern day major investigation.

BIAs can offer SIOs an additional perspective and decision support throughout a serious crime investigation through the pragmatic application of behavioural science theory, research and experience.

The behavioural analysis of information gathered by the investigation team can assist in prioritising lines of enquiry, potential suspects and DNA sampling processes as well as helping to identify other critical pieces of information to progress investigative efforts. Advice surrounding nominal generation, risk and investigative interviewing can all enhance existing efforts and contributions, and the overall philosophy of providing an enhanced understanding of the criminal event offers significant value to even the most experienced SIOs.

An accurate and up-to-date understanding of the strengths and limitations of behavioural investigative advice should assist SIOs in effectively maximising the potential benefits of this now established and integral component of serious crime investigation.

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The Human Tissue Act 2004: Implications for the senior investigating officer

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Abstract

The Human Tissue Act 2004 established the Human Tissue Authority (HTA) to regulate activities concerning the removal, storage, use and disposal of human tissue. The Act also put in place a legal framework to regulate the storage, retention and disposal of human tissue. This was triggered by the practices of removing body parts from dead children at the Bristol Royal Infirmary and the Royal Liverpool Children’s Hospital.

The Act has brought about a number of changes that impact on the recovery and retention of human tissue and these changes must be recognised by SIOs. It is incumbent on SIOs to identify what samples are being retained, the purpose for such retention and the appropriate disposal once the reason for the retention of samples has ceased.

The author has been involved in a recent case where tissue retention became an issue during an investigation into the suspicious death of a child that occurred two years ago.

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1 Introduction and Background

I became involved in the human tissue debate around eighteen months ago when I was the SIO on a suspicious child death. Initially, the Public Protection Unit was investigating a case of non-accidental injury against an eleven-week-old child, (Child A). During the early stages of that investigation it transpired that the family had suffered a sudden death of a child twelve months previously, (Child B).

Enquiries were conducted and a copy of the post-mortem report was obtained which revealed a triad of injuries were present (clinical description of brain swelling, subarachnoid haemorrhage and bilateral retinal haemorrhages).

At that stage further research was needed to ensure that a complete picture of the circumstances that led to the death of Child B was ascertained.

It was established that tissue samples were still in existence and that they were being held by the pathologist. I decided that we would secure and re-examine those samples and ascertain whether there was anything suspicious about the death. This decision was taken because there were concerns about the non-accidental injury to Child A, who had sustained the injury at around the same age that Child B had died.

The coroner had already held an inquest into the death of Child B and returned a verdict of natural causes. As a result, this proved to be a difficult and complex time for the police, the coroner and the pathologist.

A meeting took place with the coroner and a request was made for access to the samples. It became evident at that stage that the samples should not have been retained as they were no longer being held under the coroner's authority and the family had given instructions that all samples should be disposed of.

The coroner directed that the family should be told of the retained samples. As the SIO, I requested for that not to happen at that stage, because if the death turned out to be suspicious then the suspect may be one of Child B's main carers and any such disclosure to the family could lead to the disposal of potential evidence.

What followed was a lengthy process involving legal services from a number of agencies to discuss the way forward. This was a sensitive case that needed a careful and considered approach because there was still a surviving sibling whose protection was uppermost in everyone's thoughts.

There were a number of issues to consider, such as whether the samples were in the lawful control of any party, what legislation would be used to secure the samples and how the samples would actually be retained and stored. Having examined the Human Tissue Act I became aware that I could seize and retain the samples as they would not be subject to the requirements of the Act. This was also applicable in relation to the onward submission of the samples to specialists around the UK. After considering the legal issues I made the decision that the samples could be seized under the Police and Criminal Evidence Act (PACE) and as such both the coroner and the pathologist were contacted and advised that this was what I intended to do.

At that stage it was made clear that the police took responsibility for the handling, retention and storage of the samples as outlined in the Human Tissue Act.

The seizing of the samples proved to be the correct course of action as following further examination, expert medical evidence was secured and the father of the child was charged with murder. However, unfortunately and tragically he took his own life before the case came to trial.

In addition to the criminal proceedings, family proceedings were also ongoing where the medical evidence was tested and the judge hearing the case delivered his verdict that Child B had been killed by his father who had shaken him to death.

The consultation process between the coroner, pathologist and the SIO was essential in gaining a full understanding of the issues surrounding the samples and the impact that it would have on the investigation and the family.

A number of recommendations were made following this case which resulted in amendments to the force's 'Sudden Unexplained Death in Infancy' policy. In addition, I had detailed discussions with the Coroner and a leading paediatrician to further enhance the way in which child deaths are investigated from a multi-agency perspective.

The coroner is currently reviewing the case papers.

It was as a result of this case that I wrote and implemented the Human Tissue Policy for Gwent Police. Appendix 1 outlines the process maps for the recovery, retention and disposal of samples as a result of a post-mortem examination.

The following section details some of the main issues of the Human Tissue Act that SIOs should be aware of.

2 Purpose of the Act

The Human Tissue Act was introduced to provide a legal framework around the recovery, retention and storage of human tissue. The Act places specific requirements on the coroner, pathologists, police and medical authorities in relation to the way in which human tissue is dealt with.

One of the statutory functions covers the regulation and licensing of appropriate establishments where human tissue is retained and stored. The HTA publishes standards that licensed establishments must meet with regard to consent, governance, quality, systems, premises, facilities and equipment and disposal.

The areas covered by the Act are:

- Anatomy;
- Post-mortem services;
- Human application (transplantation);
- Research;
- Public display.

Section 39 of the Act excludes from the HTA remit and licensing requirements, anything done (except a post-mortem) for criminal justice purposes.

The post-mortem is regulated under the Act because it is a function carried out on behalf of the coroner in licensed premises. However, any sample taken or retained during a post-mortem for purposes related to the prevention or detection of crime or the conduct of a prosecution, is exempt from the Act, as is any relevant material taken at the first place where the body is situated.

3 Recovery of Samples

Suspicious deaths involve two separate but concurrent investigations. The first by the coroner, who seeks to identify the deceased and establish the cause of death and how it occurred. The second, by the police, to determine whether a criminal offence has occurred and if it has, to bring those responsible to justice.

Samples of relevant material may be taken for three reasons. The first two, identification of the deceased and determination of cause of death, are taken under the authority of the coroner.

The third, material required as part of the investigation of crime, is taken for the purposes of establishing whether a crime has been committed and is subject to PACE. Any material recovered for the investigation of crime is not subject to the requirements of the Human Tissue Act and may be retained by the police for as long as is necessary in all the circumstances. The storage of such samples on police premises is also not subject to the Human Tissue Act licensing regulations.

All samples retained for the purposes of a criminal investigation should be identified and recorded so that a clear audit trail is available to track all samples through the examination process. This will include any samples taken from the body before transportation from the scene to the mortuary.

There may be occasions when the police seize samples and material that was previously held under the authority of the coroner and thus governed by the Act. Such seizure and retention will remove those samples from the requirements of the Human Tissue Act, provided that the material is retained for the purposes of conducting a prosecution or detecting crime. In these circumstances consultation with pathologists and the coroner is essential.

From my experience, it is advantageous to consult with the crime scene manager and record any decisions regarding human tissue retention in the policy book and include it as part of the overall forensic strategy.

4 Retention of Samples

If the pathologist retains any samples they must notify the coroner of what he has retained and the reasons for such retention. The coroner must instruct the pathologist of the retention period for each sample obtained under his authority. The pathologist must therefore, consider carefully what material needs to be retained and the purpose for such retention and advise the coroner of such.

Rule 9 of the Coroners (Amendment) Rules 2005 states:

A pathologist shall make provision, so far as is possible, for the preservation of material which in his opinion bears upon the cause of death or the identification of the deceased.

All such samples are held under a licence which is issued by the HTA.

Other samples recovered and retained for the purposes of a criminal investigation are as previously outlined, not subject to the same restrictions. It is best practice, nevertheless, for such samples to be retained in compliance with the guidance issued by the HTA. Any sample obtained for a criminal investigation can be retained for as long as is necessary. I have found that it is good practice to record any decisions regarding retention in the policy book as this provides a sound rationale for SIO thinking.

The investigation into a death can conclude in a number of different ways such as a criminal trial or a coroner's inquest. In criminal cases it is the responsibility of the police to make the decisions regarding the continued retention or disposal of any human tissue samples. Consideration needs to be given to the requirements of the Criminal Procedures and Investigation Act 1996 (CPIA) following an outcome at trial.

With regard to cases that result in an inquest, it is the responsibility of the coroner to take instructions from the family of the deceased regarding the disposal of any samples following the inquest.

5 Post Trial and Investigation Review Meeting

From my experience I have identified that following the conclusion of any trial or investigation there is a need for the police to make decisions regarding the continued retention or disposal of samples recovered at a post-mortem.

Consideration will need to be given to the requirements of PACE and the CPIA and the Human Tissue Act, to ensure that appropriate action is taken regarding samples and their continued retention or disposal.

The family of the deceased will need to be consulted and advised that the investigation has concluded and their views must be sought as to their wishes regarding the repatriation or disposal of the samples.

Following my experience of investigating the case outlined at the start of this article, I have developed a force policy that recommends a Post Investigation Forensic Review meeting is held and that the SIO, crime scene manager and a representative of the prosecuting authority, are present. The meeting should review what samples are in existence and to discuss the requirements of the various Acts in relation to continued retention or disposal. The views of the family must also be taken into account.

The meeting should be minuted and actions agreed that outline the rationale for further retention or disposal. The method of disposal should also be recorded.

This review meeting will form part of the overall forensic strategy for the investigation and an entry should be placed in the SIO's policy book.

There may be a need for further such review meetings pending any further trials or appeals.

6 Communication with Next of Kin

The coroner and the police must establish a process for communicating with the next of kin of the deceased at the post-mortem stage and following the conclusion of the inquest or criminal investigation.

The responsibility for communicating with the next of kin regarding samples depends on who has control of the samples at the relevant time. For non suspicious deaths this will be the coroner's office.

With regards to suspicious deaths where the police have requested and taken all later samples in relation to the investigation of crime, then the responsibility lies with the SIO.

In criminal cases, the FLO can play a vital role in communicating the need for the post-mortem and the recovery of samples, to identify the cause of death and to assist the criminal investigation.

Following a criminal case the FLO will be able to inform the family of the need to retain certain samples due to the criminal appeals process.

Any such communication regarding the continued retention or disposal of samples will need to be clearly documented by the SIO in the policy book.

There is a need to ensure that the family of the deceased are kept informed of the situation regarding post-mortem, retention of organs and samples and that the views of the family are acknowledged.

7 Conclusion

The process of recovery and retention of human tissue is a vital process in the criminal investigation of any suspicious death. The roles and responsibilities of the SIO are laid out in the *ACPO (2006) Murder Investigation Manual* and there is great emphasis on the forensic strategy and the recovery of evidence from the body of the deceased.

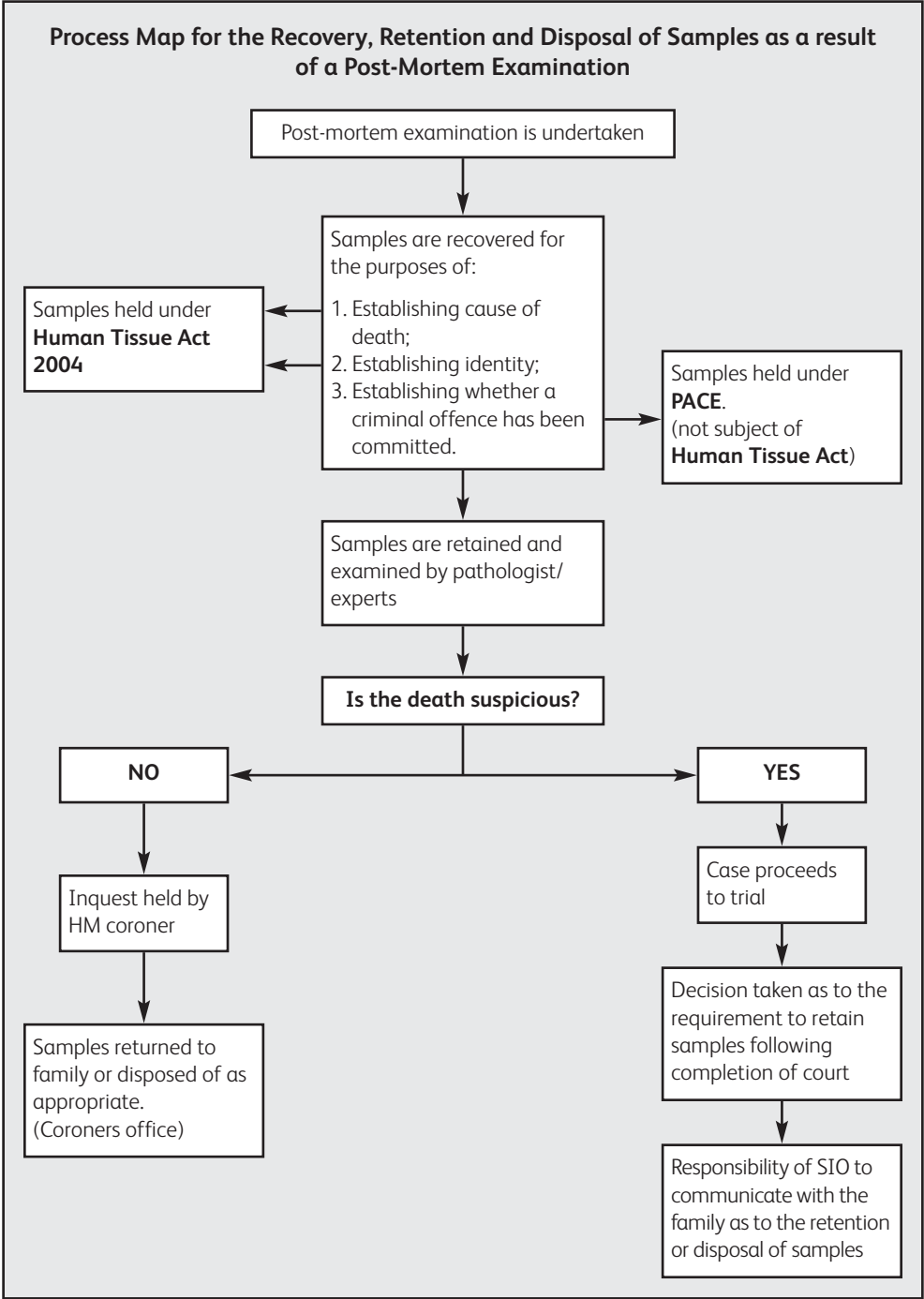
It is essential that where a death is suspicious, that the police act swiftly to ensure that forensic samples are retained at the earliest opportunity. The police must request the retention of such samples and take responsibility for their retention and eventual disposal.

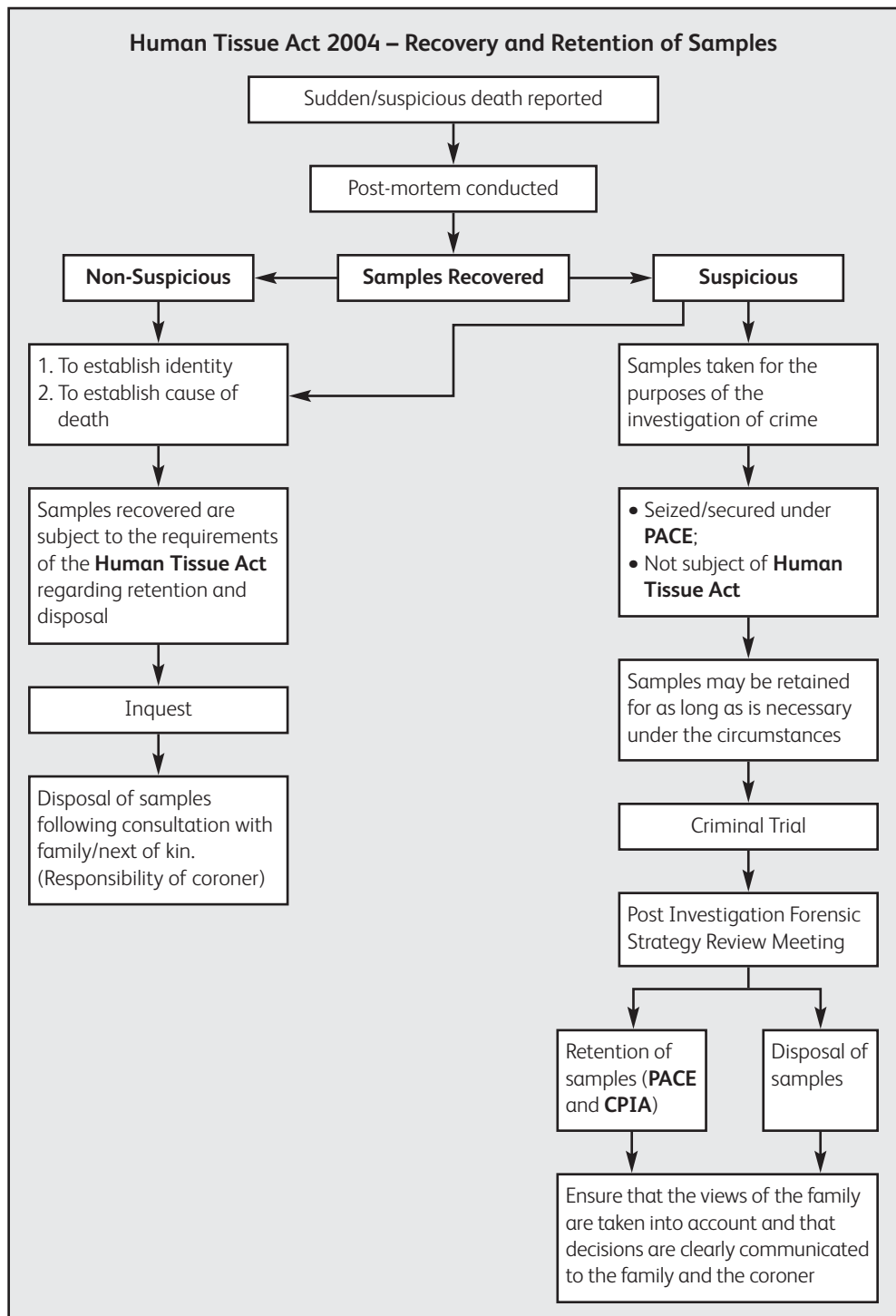
The impact on the families of the deceased is substantial, following the death of a loved one and it is vitally important that they are given the information they need at that time. The repatriation of their loved one is part of the grieving process and should be completed as soon as is possible.

It is, therefore, extremely important that the family are fully aware of what samples have been retained so that they can make informed decisions about what should happen to those samples when the investigation is concluded.

The *ACPO (2006) Murder Investigation Manual* makes reference to the Human Tissue Act and it is recommended that a section is introduced that explains the implications of the Act and the duty it places on coroners, pathologists and SIOs.

Appendix 1





Acknowledgements

HM Coroner, Mr David Bowen, Gwent

HM Coroner, Miss Mary Hassell, Cardiff and Vale of Glamorgan

Pathologist, Dr Stephen Leadbeatter

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ACPO (2006) *Murder Investigation Manual*. Wyboston: NCPE.

Focus On... Forensic Anthropology

Featured Experts: **Professor Sue Black, University of Dundee**
 Ms Julie Roberts, LGC Forensics

Interviewed by: **Gemma McKenzie**
 Investigative Practice Team
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1 Introducing the Subject

1.1 What is forensic anthropology?

Practitioners in forensic anthropology have evolved from a variety of backgrounds including anatomy, archaeology and osteology. Their expertise is based primarily, but not solely, in the analysis of human bones. Although forensic anthropologists can assist in determining the cause of death, their main remit is in the identification of the deceased.

Once remains have been discovered, the forensic anthropologist can assist in answering many of the questions surrounding the initial aspects of the investigation. This may include answering the following:

- Is the material discovered actually bone?
- Are the bones human?
- Are the bones of archaeological rather than of forensic interest (eg, have the bones been buried for more than seventy years)?
- Are the remains of more than one individual present?
- What is the racial ancestry of the deceased?
- What is the sex of the deceased?
- What is the age of the deceased?
- What was the stature of the deceased (eg, height)?
- Are there any indications of the medical and dental history of the deceased?
- Are there any indications of ante-mortem trauma (ie, trauma inflicted before death)?
- Are there any indications of peri-mortem trauma (ie, trauma inflicted around the time of death)?

- Are there any indications of post-mortem trauma (ie, trauma inflicted after death, for example, dismemberment)?
- Was there any post-mortem disturbance (ie, was the body damaged by animals, such as rodents or birds)?

2 Introducing the Experts

2.1 Professor Sue Black

What are your qualifications and experience?

‘I completed my BSc with honours in Human Anatomy at Aberdeen University. While I was an undergraduate I had the option of completing a research project involving either experiments with rodents or a study of human bones. As I have a real fear of rodents, I opted for the human bone project. My interest in this subject developed and I completed my PhD in Human Anatomy. I focused my research on how the human skeleton can be used to identify deceased individuals.

Following my PhD, I became a lecturer in Anatomy at St. Thomas’ Hospital Medical School in London. I worked alongside forensic pathology experts such as Professors Iain West and Dick Shepherd and others including Sonya Bayliss from the National Injuries Database. As the remit of their work included a forensic element, my interests and work in anatomy and osteology also began to develop in this area.

I was later involved in identifying remains in mass graves in Kosovo. During this time, I worked with many students who had a good knowledge of human bones, but were weaker in many other areas of forensic relevance and importance. As a result, I decided to develop a forensic anthropology course with Dundee University. The course is an eight year programme that includes both undergraduate and postgraduate study and aims to prepare students for the role of the forensic anthropologist.’

Do you have a particular area of specialism?

‘I specialise in the development of the juvenile skeleton, which includes the identification of children. The reason I began researching this area is because in the early 1990s my colleague and I could find very little information on the developing skeleton of children,

so we decided to write the book ourselves! In addition, I am also the course director for the advanced national training programme in Disaster Victim Identification (DVI).'

How many reports have you provided for the courts?

'Hundreds. On a national level I have prepared around forty to fifty reports. Internationally, I have prepared a great many more, including reports for the work I have carried out in Iraq, Kosovo and Sierra Leone.'

How many times have you given evidence at court?

'I have given evidence in court on very few occasions, perhaps ten times. Most of the work I am involved in does not require court attendance. The reason for this is that the main remit of the forensic anthropologist is the identification of the person involved. It is on very rare occasions that this will be a contentious issue that needs to be resolved during the trial.'

An exception to this is the recent case of Margaret Gardiner. The victim went missing in 2004 and all that was retrieved of her body was a small piece of bone found in a washing machine and a few drops of blood. DNA tests proved the remains to be those of Ms Gardiner and I determined that the bone discovered was a piece of skull. This indicated that Ms Gardiner was dead as it would not be possible to live without this section of bone. Consequently, I was required to give evidence at court.'

2.2 Ms Julie Roberts

What are your qualifications and experience?

'I was originally a registered general nurse before I completed my BA with honours in Ancient History and Archaeology. I then completed my MSc in Osteology, Palaeology and Funerary Archaeology. At the moment, I am writing my PhD thesis in Forensic Anthropology.'

I have fifteen years experience in archaeology and anthropology and ten years experience in the excavation and examination of decomposed, fragmented and burnt remains from a variety of crime scenes in the UK and abroad. I am qualified in both the identification and the excavation of human remains.

In my current role, I also run training courses in the identification and recovery of human remains for crime scene investigators. In addition, I train the military police in the recognition and recovery of human remains before troops are deployed to Iraq and Afghanistan.'

Do you have a particular area of specialism?

‘I specialise in fragmented and burnt remains and also the excavation of those remains.’

How many reports have you provided for the courts?

‘So many I’ve lost count!’

How many times have you given evidence at court?

‘I have given evidence about five or six times.’

3 The Interviews

3.1 When was the first time that forensic anthropology was used as evidence?

Sue Black

‘The first time forensic anthropology was used in the UK was in 1935 during the Buck Ruxton trial. Dr. Ruxton was convicted of murder after a skull found on the Scottish Borders was compared and matched with a photograph of his missing wife. It was not, however, a recognised discipline until recently.’

Julie Roberts

‘One of the cases that helped forensic anthropology to become a recognised discipline was the trial of William Jennings in 1988 who was convicted of murdering his three-year-old son. The use of forensic anthropology in the UK was sporadic until the war crimes investigations in the 1990s. It was at this point that it became more widely known and used.’

3.2 How well has it been received in court?

Sue Black

‘It does not reach court very often, but when it does, it is usually well received.’

3.3 Does forensic anthropology overlap with any other areas of expertise?

Sue Black

‘It overlaps most aspects of forensic sciences in some way. The main areas are those which form the basis of DVI. These are pathology, odontology, and radiology.’

Julie Roberts

‘It also overlaps with areas such as DNA analysis by geneticists and biologists. I also work closely with ecologists, botanists, entomologists and soil analysts as their knowledge of the vegetation and the environment can assist in the determination of how long ago the remains were deposited.’

3.4 Is it possible to analyse remains that have, for example, been burned?

Sue Black

‘Yes. Human bodies tend not to burn very well. Often there is external burning but the internal sections are retained. Even when a human body has been burned, fragments of bone can still be pieced back together.’

Julie Roberts

‘There is a lot of information that can be gained from burnt remains. I recently worked on the Christopher Foster case which required the excavation of the remains of Mr Foster, his wife and daughter from their family home. As their house had been destroyed by fire, some of the remains had been commingled and I was involved in reconstructing the fragments of the deceased.’

3.5 Does the analysis of the bones involve a chemical analysis or does it have more to do with the bone formation, structure and anatomical details?

Sue Black

‘Our analysis of a skeleton can take several forms. On one level, Dundee University has developed the ‘virtual anthropology consultancy service’ (VACS). This service is offered free to the Police Service. Investigators can send an image via email and an anthropologist can quickly determine whether the bone is human or not.’

Depending on the circumstances, a forensic anthropologist may need to look at the composition of the bones under a microscope or destroy the bones and conduct a chemical test.'

Julie Roberts

'We are more likely to be involved in the latter. It is possible, however, to determine where an individual has been geographically by using stable isotope analysis. The lead content of the isotopes, for example, can be compared to water supplies around the country and the oxygen content can indicate the latitude of the place where the deceased was last. For this type of analysis, however, we would ask a specialist in this field to conduct the tests.'

3.6 Do forensic anthropologists assist the police in areas other than the identification of deceased individuals?

Sue Black

'Yes. In a recent case that I was involved in I was asked to determine the age of an immigrant who had been convicted of murder who insisted that he was only sixteen years old.

Another area of work includes the identification of people in photographs, such as those involved in paedophilia, by comparing the body parts of the suspect with those in the image.'

4 Points for SIOs to Consider

4.1 At what point in an investigation is a forensic anthropologist required?

Sue Black

'If the body is recent and intact, there is generally little need for a forensic anthropologist to attend the scene. If, however, the deceased has not been identified after six months, it may be necessary to use our expertise to help in the identification process.

When skeletal, decomposed, fragmented or scattered remains are found, a forensic anthropologist should be called to the scene to assist in retrieval and identification. One benefit of this is that if, for example, remains have been found at a landfill site, a forensic anthropologist can walk the scene with the officer and quickly determine which bones are human and which bones are animal remains, therefore, saving time and expense.'

Julie Roberts

‘It is important that the forensic anthropologist attends the scene so that we can view the body in its environmental/burial context. This ensures that any decomposition of the remains and subsequent estimate of post-mortem interval can be made with the context of the burial site in mind. We can also advise on whether the remains found form a complete skeleton or whether the search should continue.

It is also helpful if we are present at the initial post-mortem. Many pathologists work best with remains that still contain flesh. If a body is skeletonised the forensic anthropologist can assist their work and it saves the pathologist calling us in at a later date to help them with their analysis.’

4.2 What are the limitations of forensic anthropology?

Julie Roberts

‘There still needs to be a lot more research conducted in determining age in older adults. At the moment, we can only give a broad age range in mature adult remains. In addition, determining race and ancestry can be tricky but DNA tests can assist in this area.’

Sue Black

‘At the moment there are not enough experts due to the duration of the necessary training. As a result, it is often difficult for the Police Service to find a forensic anthropologist with enough experience and suitable qualifications and even when they do, it can be a problem if the expert is called in too late.’

4.3 When speaking to a forensic anthropologist about recently discovered remains for the first time, what information should the SIO give to assist in the analysis?

Julie Roberts

‘SIOs should avoid touching the body. They should take photographs of the scene and if possible, email them to the forensic anthropologist. It is also helpful to include a good description of the environment, the condition of the body, and to note whether it was buried or not and whether it is fragmented or scattered.’

Sue Black

‘The forensic anthropologist does not want to hear who the SIO thinks the deceased is or anything to do with the identification of the victim. This allows us to remain independent, impartial and to not form any bias before the start of our investigation.’

4.4 How can a forensic anthropologist assist in determining the cause of death?

Julie Roberts

‘This is the role of the forensic pathologist. If remains are fragmented we can assist in reconstruction. A gunshot to the head, for example, will fragment the skull. We can reconstruct that skull and also recreate the bullet hole. We are also able to assist in distinguishing between ante-mortem and post-mortem fractures. This can help in determining the medical history of the individual and also shed light on how they were living their life.’

5 Other Questions

5.1 How long do you need to analyse the remains to gain an overall biological profile of a victim?

Sue Black

‘It really depends on the circumstances. Anthropologists involved in the VACS project can tell from a good quality photograph whether a bone is human or not within seconds. The more involvement with science, the longer the analysis will take. The reconstruction of a skull and the determination of where and when fracturing occurred, for example, can take months.’

Julie Roberts

‘A lot also depends on the state of the remains. If the remains are clean and non-fragmented we can gain a biological profile of the deceased within a day. If the remains are dirty and still retain soft tissue the analysis can take a couple of days. This is due to the need to clean the body and remove the remaining flesh before the analysis can be conducted.’

5.2 Have you worked on cases where a biological profile has been determined and yet an individual has not been identified?

Julie Roberts

‘Unfortunately, I have been involved in many cases where this is the outcome. Many SIOs, however, do not always provide feedback once we have produced our findings. Feedback is always welcomed because it confirms or refutes our conclusions and therefore helps us to improve our methods and techniques.’

Sue Black

‘Yes. This often happens when the person being identified is perhaps believed to be an illegal immigrant. If the individual is not identified, the forensic anthropologist can never be sure whether they have done something wrong in their analysis or whether the person would never have been identified anyway. At the moment I am working on two skulls found in the North Sea. The chance of identifying these individuals is likely to be slim as there is no information to compare against (eg, DNA) and identification is always more difficult when the body is fragmented.’

5.3 Can you give some examples of cases you have worked on which have assisted investigators in the past?

Sue Black

‘I worked on identifying the remains of the cameraman and interpreter who were killed alongside the news reporter Terry Lloyd. I had over 250 thumb size fragments of bone which I was able to determine were part of a right and left leg. DNA analysis showed that these bones belonged to the interpreter and conclusions were able to be drawn on the events surrounding his death.

I also worked on identifying the remains of the Prime Minister and Cabinet of Grenada who were killed during a coup. In addition, I have been involved in identifying UN soldiers who were killed in Sierra Leone and I was part of the team that helped identify the victims of the Tsunami in Thailand.’

Julie Roberts

‘I believe I am the only practising forensic anthropologist in the UK employed by a forensic service provider, involved in casework on a daily basis. As a result I have worked on a wide variety of cases and with remains found in many different environments from woodland to

rivers. I was involved in the exhumation of British soldiers killed in Iraq and I also assisted in the war crimes investigations in Kosovo. At the moment I am involved in casework in Germany.'

5.4 What are the highs and lows of your role?

Sue Black

'The highs come when I am able to identify a person. We are given our identity shortly after birth and I believe that we deserve to retain it even in death.

The lows come when I am unable to identify a person's remains. One experience of this was in 2004 when I was part of a team who failed to find the remains of a mother and son who had disappeared nearly thirty years before.'

5.5 What does the future hold for forensic anthropology?

Julie Roberts

'A lot of research still needs to be done in building biological profiles from specific population groups. Most of the standards we use for this stem from research carried out in the early twentieth century in the USA. The subjects used in this research were largely American vagrants from the 1920s and these people will have had a very different biological profile to modern Europeans.

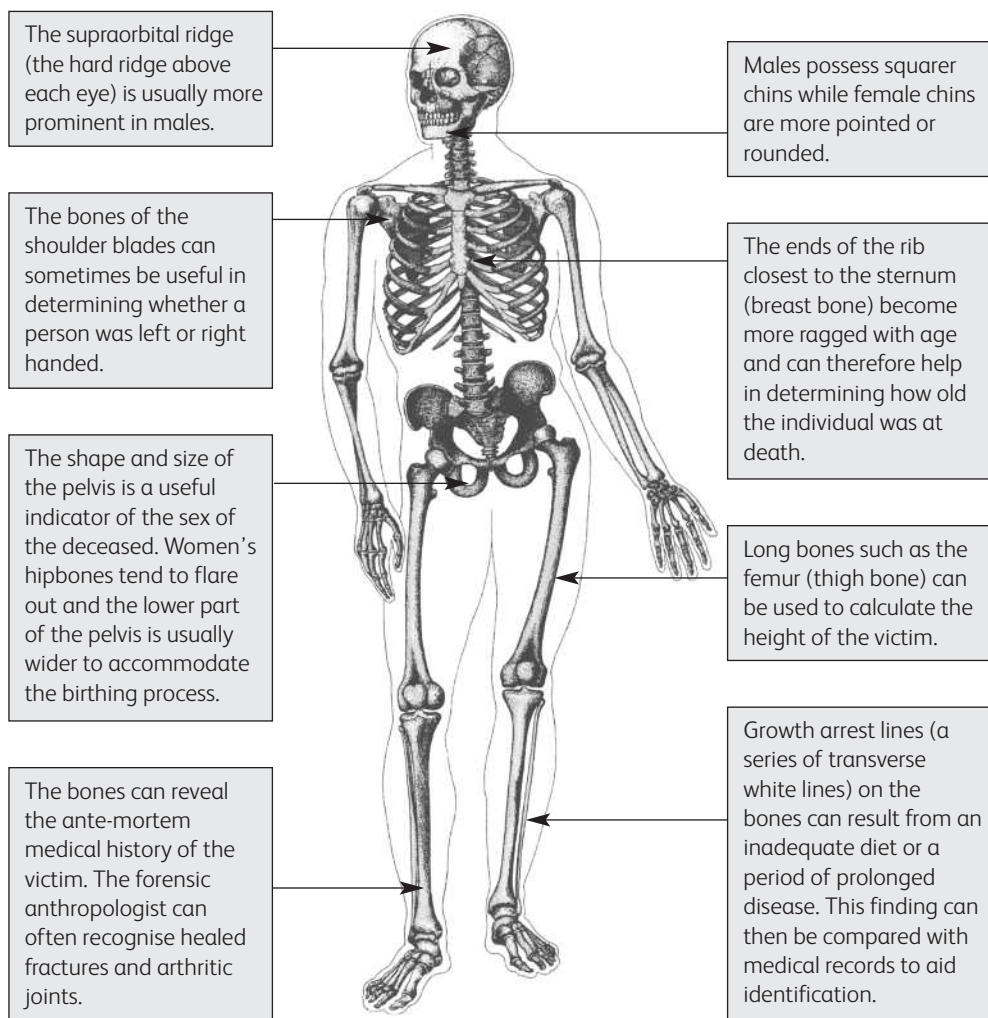
More also needs to be done with ancestry and race. Although this area is not very clean cut due to the mixing of different ethnic groups, it also seems as if people shy away from researching this subject due to its sensitive nature. Another problem is that there are very few jobs in the profession with the exception of university posts. Nevertheless, we have made progress with regards to the standardisation of procedures and the regulations to be adhered to by practitioners.'

Sue Black

'There will be slow but organic growth as the Police Service and judicial authorities become aware of what forensic anthropologists do. If we do our jobs well, the discipline will continue to grow.'

6 Did You Know...?

There are many techniques employed by the forensic anthropologist in their attempt to identify a deceased individual. The following diagram highlights some of the clues these experts will look out for during their analysis of human remains.



- With a living person, it is possible to use a night vision camera to see the superficial vein patterns of the body. These vein patterns are like a vascular bar code and are unique to each individual.

- When a person gets a tattoo, dye is inserted between two layers of skin. Over time, molecules of this ink and dye seep into the lymph nodes. These are like the drain cover in a shower and so they trap the large molecules of the ink. As a result, if the lymph nodes are available, a forensic anthropologist can determine whether the deceased person had a tattoo on that limb even when the limb is missing.

7 Conclusion

Forensic Anthropology, the study of the human body and in particular the skeleton, has proven to be a key factor in the identification of human remains. The use of this forensic specialism continues to grow as forces become more aware of what forensic anthropologists can offer an investigation team.

Further information:

To consult a forensic anthropologist forces can contact NPfA's Specialist Operations Centre on 0845 000 5463. The Centre holds a register of suitably qualified and experienced forensic anthropologists.

If your force is interested in submitting an image for consultation by the VACS programme, please send an email to bones@dundee.ac.uk or telephone 01382 388825.

LGC Forensics has a number of offices in the UK and abroad. Its services operate nationwide and overseas and Julie Roberts is available as a point of contact to give free advice in the first instance. Julie can be contacted on 01925 248800 (main service desk) or directly on 07920 424516.



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