



## **Policy Document: overarching Forensic Strategy for Operation Kenova Terms of Reference investigations**

### **1. Introduction**

- 1.1. This document sets out the approach to the use of forensic science by Operation Kenova. It replaces the initial forensic strategy documents created in 2016 during the early phase of the investigation. The Forensic Strategy described in this document has been arrived at after learning and experience gained from interaction with the PSNI and other Northern Ireland institutions. It is therefore a strategy which is in progress, rather than one about to be undertaken.
- 1.2. In general terms Operation Kenova applies the methodology of the use of forensic science in homicide investigation. This policy sets out areas where this methodology has been adapted or extended in order to be effective due to the particular circumstances of the Operation Kenova investigation and Northern Ireland legacy investigations generally.
- 1.3. Aside from primary exhibits and their derived materials, Operation Kenova also expects to encounter material from other investigative strands (such as review of intelligence material) where forensic science may have potential to advance the issues in question. The approach set out in this strategy is therefore applicable across all aspects of the Operation Kenova investigation, rather than reserved only for material from reactive investigations.

### **2. The opportunities for forensic science to progress Operation Kenova investigations**

#### *Approach*

- 2.1. Identification and exploitation of forensic opportunities within the investigation focuses on the following evidence types:

- Fingerprints and palm prints
- DNA from attributable biological sources
- Ballistic material.

In addition to specialist niche forensic evidence as required.

- 2.2. Each of these evidence types combine the elements of individualisation; high discrimination power; searchable databases; a *general* level of traceability and reliability in terms of findings(see 2.6); availability of skills and analytical tools at affordable cost; and technical advances since the era of the offences, which are summarised below:

- DNA technology allows for testing of biological material that could previously not be tested.
- Improvement in DNA sensitivity means that samples analysed in 1990s/ 2000s can be re-tested with improved results, either from new

examinations of items or by revisiting the remaining extract material from previous testing.

- In the absence of the original exhibit, this testing can be applied to biological material on samples or other materials (e.g. adhesive tape lifts) previously taken from the item and retained by forensic scientists.
- Some new techniques for developing finger and palm marks have been developed since the 1990s.
- The change to the fingerprint standard for evidence in 2000 means that marks previously considered to be of no value/ insufficient detail can be revisited.
- DNA and fingerprint databases have continued to evolve with larger datasets available since the 1990s/ 2000s and can produce matches by means of database search.
- An electronic ballistic database (IBIS/ NaBIS) is now in existence along with historical Open Case Files which can be used to link incidents to firearms, and to other incidents.
- A number of cases within the Operation Kenova Terms of Reference were subject to forensic review by the Stevens Enquiry team and the PSNI Historical Enquiries Team (HET) in the mid-2000s. Material examined during these investigations has largely been retained. A number of the technical developments listed in this section available to Operation Kenova arise from the period since the period of HET/ Stevens activities.

2.3. Accordingly the approach is to target these evidence-types both in terms of the Forensic Review process for case investigations and in respect of victims, witnesses and subjects of interest. Practically this includes the following:

- Creation, development and maintenance of a Biometric Matrix, recording the status of subjects (suspects, victims, witnesses) in relation to whether fingerprints, palm prints and DNA profiles are available either nationally or in NI.
- Obtaining victim fingerprints, palm prints and DNA profiles wherever possible. This includes new testing of items from the victims, sampling family members, and where relevant obtaining retained biological material from FSNi and the State Pathologist's Department for testing.
- Consideration given to the creation, development and maintenance of a bespoke, ring-fenced dataset of biometrics from Subjects of Interest to Operation Kenova (for example by utilising Operational Response Databases (ORDs) functions within the National DNA Database and Ident 1 (National Fingerprint Database)). The creation of a targeted dataset has the benefit of enabling more partial material to be searched, as well as increasing generally the effectiveness of automated searching (as the target dataset is much smaller than national or regional databases).

- 2.4. In addition to the key evidence types indicated above, consideration is to be given to other forensic examinations, with particular reference to the following, due to the nature of the Operation Kenova offences:
- Document evidence – indented impressions/ handwriting/ typewriting and other distinguishing features.
  - Audio evidence – enhancement and analysis of audio material and voice comparison.
- 2.5. Although digital forensic evidence does not routinely feature in previous examinations, arrest processes need to take account of search strategies and the availability of information from mobile phones, tablets and computers. SO15 resources are to be considered should this become a requirement.
- 2.6. From the experience of undertaking Forensic Reviews, it is acknowledged that there is vulnerability with the process of finding and locating relevant material. Although the process is designed to be effective and complete, account needs to be taken of the passage of time and the variable nature of transit and storage processes in Northern Ireland during the era of the offences, and that material sought may later be found in unforeseen circumstances or locations.

#### *Reliability of findings*

- 2.7. It is acknowledged that legacy investigations must take active consideration of the threats to reliability of the findings of any forensic test, arising from the following factors:
- the passage of time;
  - the absence of optimal records;
  - degradation of packages or seals; and
  - less effective or differently-targeted anti-contamination mechanisms of earlier eras,
- and consequently the threat to the reliability of the findings of any forensic examination or test, both those undertaken previously and those where new examinations are undertaken.
- 2.8. A general reliability test is to be applied throughout the Forensic Review process, in order to be satisfied that new examinations are viable and not obviously based on false assumptions or in a context of unreliability.
- 2.9. Following examinations and in the context of new findings, a second stage reliability test is to be undertaken involving specific and detailed research into the history of exhibits and tests, with a view to establishing reliability specific to the particular findings in question.
- 2.10. DNA needs particular consideration, as this is not an evidence-type that was in existence, understood or necessarily foreseen during the era of the original

offences. Processes within crime scenes, storage areas and forensic science laboratories were not designed to prevent or minimise DNA contamination of items either across cases or by the staff handling or examining the items.

- 2.11. DNA testing is now so sensitive that non-visible amounts of non-attributable cellular material can produce useful DNA profiles. The availability of police and FSNI staff DNA elimination profiles is patchy and necessarily incomplete since officers and staff have since passed away.
- 2.12. Accordingly DNA examinations are to be routinely targeted at *attributable* biological material – generally either bloodstains or hairs (particularly hair roots and root sheath material). These are evidence types that were understood in the earlier era and contemporary anti-contamination procedures were aimed at managing the risk of this type of material being transferred from staff or other cases.
- 2.13. In the event of DNA profiles being obtained from new examinations, all PSNI and FSNI staff, and other witnesses, known to be in contact with the item are to be subject to elimination DNA sampling (if they give consent, which is required).
- 2.14. Operation Kenova was established with operational independence from the PSNI, as far as practically achievable, in order to fulfil obligations under Article 2 of the ECHR. Accordingly, the measures in 2.15 to 2.17 are generally adopted to maintain this position, whilst ensuring that forensic reviews and new forensic examinations are effective.
- 2.15. Where finger and palm print comparisons and searches were previously undertaken by the RUC/ PSNI Fingerprint Branch (from either the original era or the HET era), new comparisons are undertaken by fingerprint examiners working on behalf of Operation Kenova.
- 2.16. Additionally where both firearms and ammunition are still in existence, new comparisons are undertaken by firearms scientists working on behalf of Operation Kenova to confirm the connections.
- 2.17. Examinations undertaken by FSNI in support of Operation Kenova are limited to non-interpretive testing, where there are reasons to retain the items within the territory of Northern Ireland.
- 2.18. At times of operational necessity and after appropriate consideration, Operation Kenova may need to diverge from the above approach to ensure the effectiveness of this strategy.
- 2.19. In the event of findings of apparent significance, FSNI and PSNI staff involved in previous examinations are interviewed by Operation Kenova investigators with a view to establishing the working environment and protection mechanisms relevant to the specific cases and findings.

## *Methodology*

2.20. For each separate investigation the following steps are followed:

- Investigative review
- Forensic Review
- Exhibits Review
- Forensic Management Meeting
- Undertaking of new forensic examinations (if deemed appropriate)
- Review of findings of new forensic examinations
- Further Forensic Management Meetings and forensic examinations until an assessment is made that forensic examinations are complete.

## **3. Forensic case reviews**

### *Forensic Review*

- 3.1. The process of Forensic Review involves accessing information held in the appropriate repositories in Northern Ireland, along with those elsewhere in the UK and the Republic of Ireland. The basic methodology for Forensic Review is outlined as follows.
- 3.2. An initial review of the circumstances of the offence and the previous investigations is undertaken, in order to inform the subsequent Forensic Review.
- 3.3. Enquiries are made of each of the appropriate repositories using SPOCs at each repository and utilising information (and reference numbers) available from the prior review.
- 3.4. Wherever practicable, the original files are reviewed at the locations where they are held.
- 3.5. MIR22 reports for each review are completed and submitted to the MIR, comprising a description of the contents of the files with reference to the items examined, the findings of the examinations, and the movement and disposition of the items.
- 3.6. Until or unless there is an evidential or technical requirement, original files are retained at the repositories and copies of the files are obtained and entered as Documents into the MIR. These copies are cross-referenced with the review Reports appertaining to each file.
- 3.7. For each case, a Forensic Summary Report is generated. This summarises the findings of the Forensic Review, along with the status and findings of new examinations.

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3.8. Below is a short description of the locations where material is held, the type and relevance of the material, and the arrangements for access.

- **Forensic Science Northern Ireland (FSNI)**, formerly the Northern Ireland Forensic Science Laboratory (NIFSL), [REDACTED]  
[REDACTED] These files relate to the scientific examinations undertaken by NIFSL during the original investigations, divided into different files for different scientific disciplines. For cases where HET undertook an investigation the usual expectation is that a Master File has been created, consisting of original laboratory submission forms and general documentation, and additionally that a Scientific Advisor file is present, relating to the activities, correspondence and further examinations undertaken at the request of the HET. In addition to Examination Notes, original statements of scientists are often held within these files, along with notes relating to the movement of items.
- **PSNI (formerly RUC) Fingerprint Branch**, [REDACTED]  
[REDACTED] These files relate to the finger and palm marks found at the crime scenes and during subsequent examinations of items for fingerprints at the specialist examination facility held within the Fingerprint Branch, and search and comparison activities undertaken by Fingerprint Branch. These files contain the original tape lifts and photographs (and sometimes the negatives) of the finger and palm marks.
- **PSNI Centre for Information on Weapons and Explosives (CIFEx)**, formerly RUC DRC (Data Reference Centre) and WERC (Weapons and Explosives Research Centre), [REDACTED]  
[REDACTED] These files relate to the ballistics examinations undertaken by the PSNI/ RUC for intelligence purposes (as opposed to those undertaken by FSNI/ NIFSL for evidential purposes). These were old microfiche records which were converted to paper during the HET phase. The information relates to ballistic findings and links to other offences, and disposal of the firearms to RUC/ PSNI Weapon Control.
- **PSNI Weapon Control**, formerly RUC Weapon Control, holds information relating to the issuing and disposal of firearms, including firearms recovered that have been used in crime or terrorism offences. These records are manual/ paper records, they are understood to be incomplete, and in some cases contaminated by asbestos. Some records are understood likely to be absent; records also appear to contain inconsistencies and some references that are not fully understood. Previous investigations appear to have tracked the histories of firearms only to the point of a disposal; however disposal only means the referral of the weapon to Weapon Control. In some cases the firearm appears to have not been destroyed but requested either by RUC WERC/ PSNI CIFEx or NIFSL/ FSNI reference collections, or other units of the RUC or military.
- The **PSNI TRIM system** (electronic material held on PSNI IT systems). Within the PSNI TRIM system for each case is a "Forensic" folder, which is populated by electronic documents found by Legacy Investigation

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*Branch, relating to HET activities, after the closure of the HET. These electronic documents are accessed by NI-based Operation Kenova officers and forwarded to the Forensic Coordinator for review. Many of these folders are empty.*

- **The State Pathologist's Department for Northern Ireland**, located at the Royal Victoria Hospital, Belfast. *The Department holds original notes and copies of images relating to post mortem examinations.*
- **Forensic Archive Ltd**, located at [REDACTED]  
[REDACTED] *This is the repository for all files of the now-defunct Forensic Science Service. It is accessible via SPOC enquiry points. Operation Kenova uses the Forensic Case Management Unit at MPS Forensic Services, which is a designated SPOC. Files are requested and held at MPS Forensic Services, Lambeth. The FSS files relate to examinations commissioned by the Stevens Enquiry during 2004-2005, and some examinations commissioned by the HET in the period 2007-2011. There are also files relating to cases passed by FSNi to the FSS during the HET phase that are unrelated to the Stevens Enquiry. Unlike the FSNi files, these include examinations for finger and palm marks (but not comparison or search activity).*
- **Metropolitan Police Fingerprint Bureau**, part of MPS Forensic Services, located at 109 Lambeth Road SE1, with archives at Marlowe House, Sidcup. *These files relate to fingerprint comparisons and search activities undertaken by the MPS Fingerprint Bureau, then at New Scotland Yard, commissioned by the Stevens Enquiry in the period 2004-2005, and to a lesser extent the HET up to around 2008. The fingerprints in question fall into two categories: copies obtained from PSNI of the marks found during the original investigations by the RUC, and marks arising from the then-new FSS examinations.*
- **Eurofins Forensic Services**, formerly LGC Forensics Ltd and Forensic Alliance Ltd, at various locations including Queens Road, Teddington; and **Cellmark Forensic Services**, formerly Orchid Cellmark, located at Abingdon, Oxfordshire. *These relate to examinations commissioned during the HET phase, confined to examinations outside of the compass of FSNi or the FSS. LGC Forensics subcontracted some specialist DNA work to Cellmark Forensic Services.*
- **An Garda Siochana Technical Bureau**, located at [REDACTED]  
*This is the subject of requests to An Garda Siochana made on 21/9/18 during a meeting at Phoenix Park. Files held by the Garda Technical Bureau are understood to relate to fingerprint examinations, comparisons and searches, and ballistic examinations.*
- **Forensic Science Ireland**, [REDACTED]; and **The Republic of Ireland State Pathology Department**. *These two organisations have yet to be formally approached, but are to be approached by An Garda Siochana on behalf of Operation Kenova, as per the arrangement agreed at Phoenix Park on 21/9/18.*

### *Exhibits Review*

- 3.9. Parallel to the Forensic Review process, a review of **available** exhibits (as opposed to those that were originally held by the investigation, which falls within the Forensic Review) is undertaken by the following means.
- 3.10. Enquiries are made of the PSNI Serious Crime Exhibits Store (SCES), Seapark, by the Exhibits Officer, using case and exhibit references.
- 3.11. Enquiries are made of victims and families via FLOs as to whether items returned, restored or retained by victims or families that could provide forensic opportunities.
- 3.12. SCES is incomplete in that the majority of exhibits from the original investigations are missing presumed lost or destroyed prior to SCES being established in 2004. Operation Kenova undertook a search exercise in 2017 to locate any further items relevant to the cases within the Terms of Reference.
- 3.13. Notwithstanding the earlier search activities the Exhibit Review process also includes consideration of potential alternative locations and enquiries that can be undertaken to progress this, including investigators revisiting former PSNI officers to establish if they can recollect the disposal or movement of any of the key items.

## **4. Forensic case management**

### *Forensic Management Meetings*

- 4.1. Formal Forensic Management Meetings are held for each case upon the completion of the Forensic Review and Exhibits Review.
- 4.2. The meetings are attended by the Deputy SIO, Forensic Coordinator and Exhibits Officer with the relevant Case Officer, Investigator and FLO as required.
- 4.3. The objectives of the meeting are to:
  - Consider whether and how forensic science can advance the investigation, in the context of the investigative strategy and investigative requirements.
  - Consider forensic opportunities identified by the Forensic Review and Exhibits Review, and decide on whether they are to be exploited, and by what means.
  - Consider how to obtain reference DNA and finger and palm prints for the victim(s).
  - Establish Subjects of Interest for the investigation, and their biometric status for entry on the Biometric Matrix.
  - Raise, review, update and resolve Actions relevant to the Forensic/ Exhibits category for the case on HOLMES.



### *Strategic management of forensics*

- 4.4. Decisions to progress forensic activities for individual cases, as identified at Forensic Management Meetings, are subject to further consideration at a strategic level in the context of the entire Operation Kenova investigation, by the SIO/ Deputy SIO and Forensic Coordinator. This strategic consideration takes account of:
- Strategic aims of the investigation
  - Case prioritisation
  - Consistency of approach
  - Resourcing and finance
  - Pan-investigation activities
- 4.5. The Forensic Coordinator sits on the Kenova Executive Group (KEG) and attends other Kenova management meetings including tasking meetings.

### **5. New forensic examinations**

#### *Provision of forensic services to Operation Kenova*

- 5.1. New forensic examinations are provided to Operation Kenova by MPS Forensic Services and contracted partners, by means of a Goods and Services Agreement.
- 5.2. Examinations requiring non-interpretive testing within Northern Ireland territory are provided by FSNI, by means of their existing arrangements with PSNI.
- 5.3. Both FSNI and MPS Forensic Services have established Quality Management Systems (QMS) and are accredited to work within a regulatory framework (to international standard ISO17025) and at the point of submission all Operation Kenova work is undertaken according to each provider's QMS.
- 5.4. Exhibits requiring new examinations are obtained from PSNI SCES by Operation Kenova NI-based officers in concert with the Exhibits Officer, using SCES procedures.
- 5.5. New examinations are commissioned by means of existing electronic forensic submission systems (standard to MPS Forensic Services and FSNI) and formal Request Documents completed by the Forensic Coordinator.
- 5.6. Exhibits are physically delivered by hand by the Exhibits Officer or delegate to MPS Forensic Services or FSNI.

#### *Management of new forensic science examinations*

- 5.7. The Forensic Coordinator for Operation Kenova is a MPS Operational Forensic Manager. For work conducted by or on behalf of the MPS, the Forensic

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Coordinator also acts as operational manager in respect of the new examinations.

- 5.8. Within the MPS for reasons of information security the investigation is referred to as Operation Coronet.
- 5.9. Within the MPS a dedicated senior scientist/ specialist for each discipline undertakes the work, either in-house at MPS Forensic Services or via contracted partners (Eurofins Forensic Services or Mass Consultants Ltd).
- 5.10. This group, along with the Operation Kenova Exhibits Officer, forms a multi-disciplined team (the 'Coronet Forensic Team') which is led by the Forensic Coordinator and holds formal meetings.
- 5.11. The objectives of the Coronet Forensic Team meetings are:
  - to ensure effective case progression;
  - identification and resolution of issues;
  - address infrastructure and cross-case issues;
  - identify new and emerging techniques and technologies of potential use to the investigation.
- 5.12. Where issues or findings require direct interaction between investigators and forensic scientists or specialists, meetings are held with specific objectives, facilitated by the Forensic Coordinator.

#### *Use of biometric databases*

- 5.13. DNA profiles or suitable finger and palm marks of sufficient quality which are unidentified are subject to search and loading on the following databases:
  - Ident 1 (UK National Fingerprint Database)
  - PSNI Fingerprint Database
  - UK National DNA Database
  - Northern Ireland DNA Database
  - Counter Terrorism Fingerprint Database
  - Counter Terrorism DNA Database
- 5.14. The profiles and prints are loaded under references "Operation Coronet" and [REDACTED] which contains contact details for the Operation Kenova investigation in the event of a hit.


## **6. Pan-investigation arrangements**

### *Forensic management tools*

- 6.1. In addition to standard HOLMES management of information relating to exhibits, subjects and investigations, the following matrices bespoke to Operation Kenova are maintained:
- Headline Forensic Matrix – which summarises the findings of previous investigations, Operation Kenova findings, and available forensic material capable of comparison.
  - Biometric Matrix – which sets out the status of subjects (victims, witnesses and subjects of interest) in terms of whether DNA profiles and finger and palm prints are available for comparison.
  - Firearms Information Matrix – which sets out the known information and reference details for the firearms relevant to the offences within the Terms of Reference.
- 6.2. The bespoke matrices are created, developed and maintained by the Forensic Coordinator. Copies are maintained on HOLMES by the MIR Manager and refreshed on a monthly basis.

### *Subjects of interest*

- 6.3. Where forensic material exists within investigations, consideration is to be given to obtaining reference DNA and finger and palm prints, and other samples as appropriate, from Subjects of Interest in order for comparisons to be made.
- 6.4. Existing biometric records for Subjects of Interest are obtained from the following sources:
- Exhibits held by previous investigations
  - Ident 1 (UK National Fingerprint Database)
  - PSNI Fingerprint Branch
  - UK National DNA Database
  - Northern Ireland DNA Database (custodian FSNI)
  - Counter Terrorism Fingerprint Database
  - Counter Terrorism DNA Database
- 6.5. On written application by the Forensic Coordinator, SPOCs within FSNI, PSNI Fingerprint Branch, Home Office and the MPS provide biometric data from these sources relating to Subjects of Interest.

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- 6.6. Unless there is a technical or evidential reason to obtain originals, copies of fingerprints and palm prints are obtained for use in comparison activities.
  - 6.7. As with usual homicide arrangements, PACE sections 61 and 63 provide opportunities for obtaining biometrics from Subjects of Interest who are subject to arrest and detention. The *Operation Kenova SOI Arrest/ Interview SOP* is to be referred to for detailed guidance
  - 6.8. Where voluntary attendance and interview under caution is considered appropriate for the attendance of Subjects of Interest, and where forensic material is available for comparison, consent of the subject is to be sought using specific Operation Kenova voluntary consent forms, in order for the biometric material to be utilised for the required purposes.