



Metropolitan Police Authority

EXEMPT

CO-ORDINATION AND POLICING COMMITTEE - 7TH December 2006

THE MPS USE OF FORENSIC SCIENCE

**Report by Assistant Commissioner House on behalf of the
Commissioner**

Summary

This report provides an overview of the use of forensic science setting out its impact in tackling criminality in the MPS against the background of the commercial development of forensic science provision in England and Wales. It outlines the broad strategic direction that the MPS will take in respect of the securing cost forensic science delivery.

**A. RECOMMENDATIONS — That Co-Ordination and Policing
Committee**

- 1. Note the developments in forensic science capability within the MPS within the broader contribution of forensic science to tackle crime.**



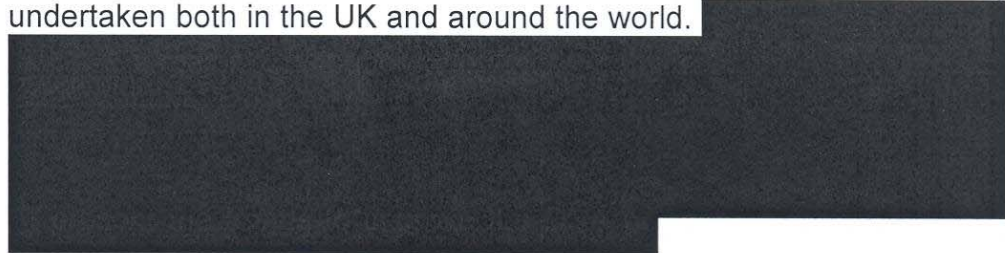
B. SUPPORTING INFORMATION

Current and Future Trends in Forensic Science

- The spectacular developments in DNA profiling over the past ten years to identify and individualise minute traces of body fluid and cellular material have dominated the police use of forensic science in criminal investigations. Our need to exploit the potential of this most powerful forensic tool has led to a concerted effort to raise awareness of police investigators, increase the National DNA database (NDNAD) and increase the service capacity to maximise the forensic opportunities to collect material for analysis. This imperative was recognised by the Home Office in 2000 and led to the 5 year national DNA Expansion Programme.

2. Over the past five years there has been a determined effort within the MPS Directorate of Forensic Services to maximise the use of the forensic science and grow the organisational capability to achieve a forensic impact on priority crimes based on:
 - Increased Forensic Intervention
 - Timely identification of suspects
 - Increased Outcomes (via forensic sanctioned detections and intelligence)
3. Through a greater investment and expansion in the numbers of crime scene examiners and development of internal training within a forensic practitioner based structure the MPS has taken full advantage of the opportunities stemming from the growth in DNA profiling and the NDNAD. Increases in examinations and retrieval rates from crime scenes have resulted in the number of DNA crime stain samples sent for processing through the NDNAD growing in 2005/6 to an annual of some 21,000 samples leading to the identification of 9,750 individuals. The MPS contribution to the growth of the NDNAD arrestee profiles is now some 160,000 samples per annum onto a database now exceeding 3.5 million.
4. The forensic contribution year on year in priority crimes such as Residential Burglary has played its part through higher numbers of offender identifications (4,260 in 2005/6) and forensic sanctioned detections (1,422). The combined power of national Fingerprint and DNA databases is today enhanced through in-house resources such as automated fingerprint searching systems and a DNA Central Submissions Unit to quickly progress turnaround times for both arrestee DNA samples (2 days) and crime stains (5 days) retrieved from unsolved crime scenes. Speedy identification processes continue to make a major contribution to offender identification within a range of specialist crime investigations contributing to the high success levels in solving Homicide including cold cases and other major crime investigations.
5. The current development of specialist forensic support within the MPS is highlighted with the partnership between specialist investigators (Operation Sapphire) and forensic staff in Sexual Crime and Rape offences. A small team of senior forensic practitioners led by an in-house Consultant Practitioner has worked over the past three years to advise and quality assure the forensic contribution being made in serious sexual offences to provide a best practice guide to their colleagues and maximise the forensic opportunities available. The work has been further enhanced with a close link with the MPS Havens. The impact of this initiative has shown that the greater awareness over the past three years has led to DNA recovery rates in rape offences climbing from 23% in 2003 to over 58% in reported offences today.

6. At present the trends to improve the DNA police product are in many ways handicapped by the lack of any technology to locate the forensic material on surfaces and items. Laboratories still rely on manual means by technicians or scientists to search items and locate the potential stains for testing. The use of various forensic light sources offers some alternative but we still await the development of alternative technologies such as Terahertz Radiation sources now developed for drug and explosive detection to be applied to more biological materials. Until their arrival the longstanding use of manual methods adds considerable costs and time to processing of case exhibits.
7. The development of electronic DNA testing methods or 'DNA on a Chip' technology is also progressing fast. The first chip technology has been developed and the work to manufacture a usable device is being undertaken both in the UK and around the world.

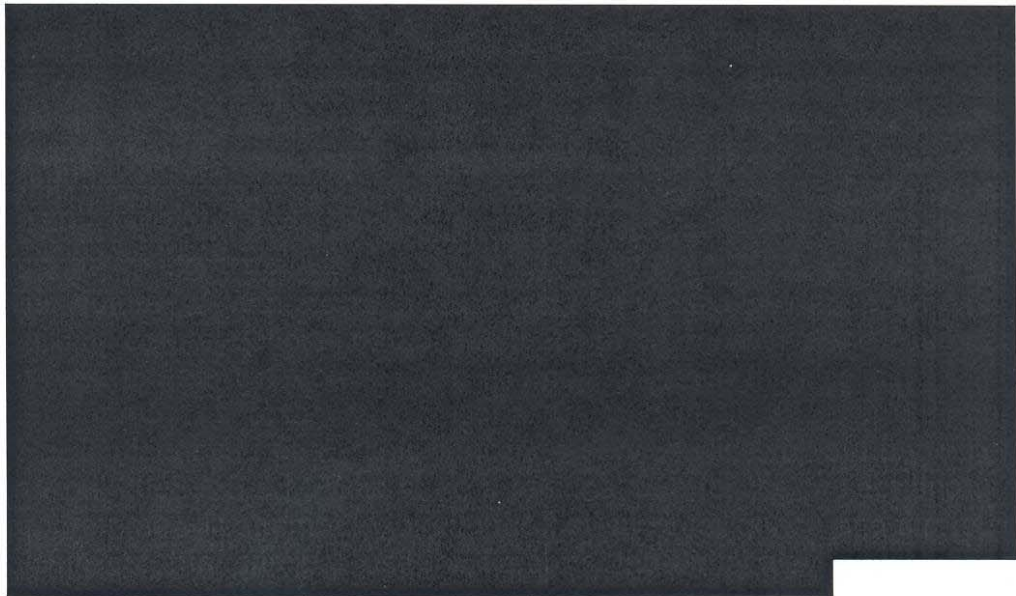


The use and Effectiveness of Forensic Science

8. The effective use of forensic science is today split into a number of areas:
 - Identification of offenders/suspects
 - Corroboration of persons
 - Elimination of persons
 - Intelligence
 - Understanding trends in criminality
9. The MPS is a major contributor to a range of forensic databases such as the NDNAD, National Fingerprint systems for arrestee samples and through case work to specialised forensic intelligence forensic databases such as Drugs Intelligence and Gun Crime open case files. The MPS has placed a high emphasis on timely results and pressed forensic providers to meet both investigative and evidential timescales that meet judicial requirements as these have tightened over the last three years. The complexity of serious crime casework calls for a very varied range of services and testing across many forensic evidence types. Whilst DNA offers the best route to quickly identify persons alongside the internal MPS fingerprint capability many other types such as footwear, fibre and paint traces are examples of valuable forensic corroboration types in a wide range of crime types.

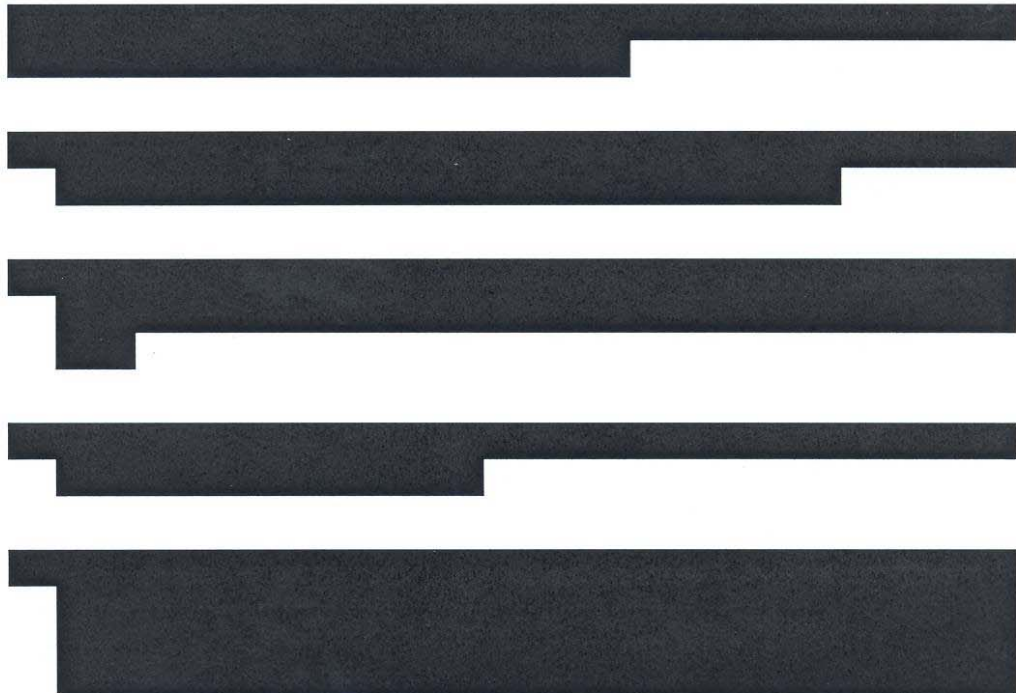
10. The future of enhancing the power of forensic evidence types is building central national databases that can be accessed and searched at will by all UK forces. An example of this thinking is in the development of a the new National Ballistic Intelligence programme (NaBIP) launched earlier this year for a service wide roll out beginning in April 2008. The MPS is to be a regional hub for the project and the programme will attempt to join up the ballistic intelligence and strategic picture of the criminal use of firearms that if achieved offers the potential to identify forensic links both within forces and across the country using real time technologies that reduce the need to rely on manual casework submissions to external providers.

11.



The Commercial Development of Forensic Science

12.



[REDACTED]

C. RACE AND EQUALITY IMPACT

1. The wider use of forensic services and its high media profile mean that the use and governance of forensic data are continually the subject of public interest. Recently there has been significant interest in the use of DNA profiling, the power to take and retain DNA and the ethnic mix of the National DNA Database. This is the subject of a recent paper to the Equal Opportunities and Diversity Board (EODB), which highlights the issues and current position with respect to the use of DNA profiling by the MPS.

D. FINANCIAL IMPLICATIONS

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3.

[REDACTED]

E. LEGAL IMPLICATIONS *(if required)*

1.

[REDACTED]

Report author: Gary Pugh, Director of Forensic Services

Background papers: